ENVIRONMENTAL COUNCIL HAZARDOUS WASTE PUBLIC CONSULTATION MEETING: TRANSCRIPT

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LAPIERRE:

It's my pleasure to welcome you to the fifth meeting of the public consultation program concerning hazardous wastes in New Brunswick.

My name is Louis LaPierre. I'm Chairman of the Environmental Council and I'll be presiding as Chairman over tonight's meeting. To my far right is Mr. Ken Langmaid, a soil scientist from St. Andrews, New Brunswick. Next is Mrs. Helen Taylor, a retired businesswoman from Doaktown. On my immediate left Mr. Don Smith from Belledune and on my far left Mr. Dave Kerr from Edmundston. Both Mr. Smith and Mr. Kerr are professional engineers.

For those of you who do not know it, the Environmental Council is a body of thirteen individuals who serve as a consulting body to the Minister of the Environment and Municipal Affairs. However, for this special project the Minister asked the Environmental Council to undertake the public hearings in which the government is aiming at a response to a program which was prepared for the management of hazardous wastes and all types of wastes within New Brunswick.

To summarize the position that's put forth by the government is that the waste disposal program presently undertaken in New Brunswick seems to be inadequate in certain aspects. Therefore in order to try to get in place a better system the government has proposed a three-tier program in which general household wastes will be disposed of in regional landfill sites. A number of these have been proposed, a drastic reduction from the present number. These would be under the management of Commissions. A specific amount of waste which is considered to be controlled waste would be landfilled or disposed of in specific areas within the Province, specific areas being a small number of three to seven areas where controlled wastes, this is waste that is deemed to need some special precaution in the way we dispose of it.

And thirdly we have hazardous waste or toxic materials which at present time the government proposes to have sent out of the Province for destruction either by incineration or other means. So most of you may have read the documents and we hope that you would have comments to bring forth to this meeting this evening in order that we may prepare a summary of your discussions and also forward some recommendations to the Minister.

The format of this evening's meeting will follow the following agenda. We have some questions which remain unanswered from previous meetings. We have invited specific individuals to respond to these questions. So. the first part of the meeting, which should take a short time, would see two individuals respond to questions from past meetings.

The second part of the meeting would be the presentation of briefs. At the present time we have nine individuals or groups who have indicated their intention to present a brief to the meeting. I would also invite any other people in the audience even if you have indicated that you might present, if you feel that you do want to present, just raise you hands and once the people who have indicated their willingness to present have gone, we would welcome any comments from the audience.

To start the meeting, I would note that at our first meeting in Saint John we had a question that was brought to the meeting from a concerned citizen from Cape Spencer. The specific question that was brought to the meeting was regarding Gordex Mines. This individual was concerned with the process that was being used at this mine. Also the waste disposal of the spoils from the mines and also what monitoring was being undertaken at the place and if any was being done or taking place. We would also like to know if an environmental assessment was carried out before the mining permit was given and if so, is data available to people who wish to see it. I guess I'll ask Mr. Vaclav Kresta to give us some information.

KRESTA:

I've tried to answer as much as I remember the question indicated. My name is Vaclav Kresta. I am with the provincial Department of the Environment in the Pollution Control Branch and one of the responsibilities I have is to take care of the problems which are connected with mining operations in the Province.

The Gordex operation did not have an Environmental Assessment study. It is a relatively small operation in comparison to existing mines in the Province and a very small operation in terms of comparing its size with other gold mining operations in the country. It is a demonstration project. This means that at this site for the first time in Canada a treatment system for the removal of cyanides will be tested.

This is a proprietary technology which was submitted to our department for review which I tested as a condition for giving an OK to go ahead with the use of the cyanide at that particular location. Based on the information we have, it's not a sensitive solution. It's a clean solution before it is applied in the process itself. There are indications that the treatment will be as efficient as indicated by the company which has developed that treatment system and which is a consultant to the Gordex company which is owning this expensive project.

For you to understand, it is in the interest of the company to make sure that there are not losses of liquid which contains cyanide because any liquid which contains this cyanide carries the value which they are trying to recover from the ore. For that reason, the place on which the pad was constructed was very carefully prepared. It has a slope which is directing every liquid toward a system of two ponds, one is called the pregnant pond, the other is the barren pond and both ponds are also lined with a system of liners, the same thing as the pad.

The two ponds and the pad constitute a closed loop. During the operation the ore which is crushed to a certain size is sprayed with the cyanide solution. Here is what is the first concern of the population from the area. They worry that because of wind action there is a danger that the cyanide solution could be carried toward their places, toward their houses, toward their gardens. This is a legitimate concern. The system which is distributing the liquid on the heap is fairly high above ground, about four meters at present. However, only about a foot above the pile itself.

In the fall because of the weather, the company could do only a limited spraying. I was present there and they tested the system and at that time the wind was very gentle and there were no problems. This does not necessarily mean that there may not be problems in the future. In order for these problems to be detected, the company is required in the approval issued by this Department and signed by the Minister to develop a correlation between the wind velocity and the danger of carrying away the spray solution. There is a system of pads which are located at strategic locations where the control is possible whether there is a loss of not. This control is fairly simple and fairly fast because the solution which is circulated in the system has a very high Ph of about 11 or 12, so very small amount of any droplets detected or falling on that pad could be detected easily. This will be controlled on a daily basis.

The second concern which was expressed was about groundwater. Nobody can really guarantee that the liner could not allow some leaks. I have seen when the liner was placed, I have walked on it. It was in perfect condition. There is not reason to suspect that there would be problems. To be sure, there are control wells which are located below the pad, below the barren and below the pregnant pond and they will be monitored by the company and checked by the Department. Once again because of the very high Ph you can very easily detect whether there is a loss or not.

If I remember correctly the third concern was about what will happen when the site is abandoned. Every mining operation must have a reclamation plan. At this time the mining company is not certain whether the operation will be viable to the extent that they will be able to continue and leach on site a large amount of ore. For that reason, at present, the company or the Department has accepted the proposal of the company described in the design documentation what would be the basic approach. That is not necessarily the final walkaway plan which will be developed according to the finding during this study and to the future, if there is any more future, of this project.

LAPIERRE:

There's a question Mr. Vaclav. Would you care to answer a question?

LANGMAID:

What is the liner made of? Is it plastic or some kind?

KRESTA:

Sixty mil. high density polyethylene.

LANGMAID:

And what's the thickness?

KRESTA:

Sixty mil.

LANGMAID:

Have they put up a bond to restore the (tape inaudible)...

KRESTA:

No.

LANGMAID:

They haven't?

KRESTA:

No. OK. Correction here. This wasn't done from our department. I am not aware whether they were asked to post a bond under the Mining Act. I am not aware of that.

LAPIERRE:

OK. Thanks a lot Mr. Kresta. The second concern that was expressed at the last meeting and also at other meetings before was the fact that the plan proposed for waste disposal in New Brunswick does not take into consideration that incineration might be a proper way to get rid of some of the wastes that we have. The program calls for landfills in the sites that are proposed, whether they be controlled wastes or whether they be general household garbage. We would like to know if there was a feasibility study done on incineration versus landfilling and if there was what were the results of this study? I think Mr. Knight is prepared to answer that question.

KNIGHT:

My name is Jim Knight. I'm an engineer with the Department of Environment in the Air Quality Section and I was given to understand that the question maybe was a bit broader than that and also there were a couple of specific concerns regarding the incinerator in Charlottetown, I believe?

LAPIERRE:

Yes, there was one ancillary question, yes.

KNIGHT:

I have prepared a few notes here on incineration in general and some of the studies that have been done on incineration in general and some of the studies that have been done in New Brunswick.

Combustion of burning of waste products has been used as a disposal method in New Brunswick for many years. Crudely designed incinerators have been used to reduce the volume of material and the remaining ash material was landfilled. Rural dumpsites have and still practice burning to reduce volume, to control varmint populations and to reduce hazards for unsupervised fires for some time.

This was probably a reasonable approach to disposal until more recent times when plastics have achieved more widespread usage and more and more household chemicals were disposal of with residential garbage. The burning of these materials results in the discharge of chlorinated compounds such as hydrogen chlorides which were first recognized as problems when they formed acid smuts from poorly controlled incinerators. Further investigation of the smut problems uncovered other emission problems resulting in strenuous efforts toward better incinerator and emission control designs.

The three major components of incinerator design are residence time of the combustion gases, temperature and turbulence in the combustion zone. Current recommendations are for combustion temperatures of 900 - 1000 degrees C with gas residence times of two seconds. Besides adding to the capital cost, these constraints also add to the operating costs as clean auxiliary fuels such as propane, natural gas or light fuel oils are usually required to maintain the high temperatures.

Some portion of the incineration costs can be recovered by reclaiming heat from the incinerator in the form of hot water, steam or even electricity. Recent oil price declines have made this option less attractive. Studies into the application of this approach have recently been conducted with the Town of Sussex and with the Towns of Lameque and Shippegan in New Brunswick. It was determined from these studies that to be reasonably cost effective, a large population base was necessary to provide a steady supply of material and an industry had to be located nearby to fully utilize the energy produced. Other factors that must be taken into consideration are the availability of suitable locations, from an engineering perspective, on which to construct the facility, its location with respect to the waste generators, and the ability to mitigate remaining environmental impacts such as traffic, odors and ash disposal. One other instance where incinerators might be feasible would be where suitable land is not readily available and expensive techniques would be required to develop a landfill.

Studies of incineration with heat recovery were carried out in Fredericton during their search for an alternative to the present landfill, where many of the major requirements were in place, including a purchaser for the steam and a suitable, central location. However, it was still determined to be too expensive even as a solution to a problem that was very pressing at the time.

Regarding the specific questions raised at the Bathurst meeting, the Department has been involved with the incineration and potential incineration of wastes for some time. Special pathological incinerators are in use at several hospitals and laboratories and crematoriums for human and animal remains have been approved. Assistance has been provided to the municipalities already mentioned in assessing the incinerator option for their disposal problems.

The Charlottetown incinerator with heat recovery was constructed as a demonstration project with special off-oil funding from the federal government. It cost $ 10.5 million including $1 million to construct a steam line to the hospital that is using the energy. As approximately 50% of the capital cost was paid by government grants, this project is in a position to become self-supporting through charging a tipping fee for garbage received and from steam sales. The plant handles up to 108 tons of garbage per day and can burn wood waste to supplement this fuel if energy demands are high and there is not sufficient garbage being delivered.

This plant has been the object of extensive air and ash emission monitoring by Environment Canada as it was perceived at the time of its construction to be a candidate for construction by other similar sized municipalities. While this testing has been completed, full reports have not yet been released on the results.

In conclusion, the Department does not have a preconceived bias against incineration. However, there are economic and environmental concerns that must be adequately addressed. With proposals that have been developed within the Province, proponents have not gotten beyond the economic issues. Environmental concerns have been addressed in general terms but detailed investigations have not gone forward. The Department does maintain liaison with a major national program on incinerator design and testing being carried out by Environment Canada as well as studies underway in Ontario and the United States. The Environment Canada group have moved on from Charlottetown to test a larger incinerator in Quebec City and evaluate a pilot project using additional emission control technologies.

They next plan to consolidate their economic appraisals of incineration and finalize their environmental report. In fact, engineers involved in this project are available to meet with municipalities interested in this disposal option to discuss their findings to date and provide advice.

I trust this provides some clarification on this issue.

LAPIERRE:

Thanks a lot Mr. Knight. Go ahead Don.

SMITH:

You say engineers are available for counselling?

KNIGHT:

These are the federal engineers that are involved in the national testing program on incinerators.

SMITH:

In Bathurst the question was simply that they have been trying to get something on incinerators for some time and they were fighting you all the way to the wire. I'm sort of lost here. Are they not aware of these people that are available to consultation?

KNIGHT:

I wasn't aware that Bathurst was interested in an incinerator. We've had proposals from other municipalities.

SMITH:

That's where the question came up. And they were saying basically that, as I got it, that they were getting no, they were just getting no's from yourself, I guess. If you're the man that's in the incinerator business. Can they contact you then?

KNIGHT:

Certainly, I'd be glad to talk to them.

SMITH:

Thank you.

LAPIERRE:

Thanks a lot Mr. Knight. We might have more questions later on as the evening goes along for incineration. I think we'll now move on to the formal presentations, the people who have asked to present formal briefs. I'd ask the presenters, if at all possible, to try to limit their presentation to ten minutes or if they need be, 15 minutes because we have nine presenters who have officially asked, so with some questions and also for some time for other people in the assembly who might wish to address the meeting. I will now call upon Dr. Morgan to present the brief from the New Brunswick Medical Association. Before Dr. Morgan starts, just a minute please, I just wanted to tell you that we have listed the briefs as they have been received so I can read the order in which the presenters will be asked to present and you may wish to be ready at that time.

The second presenter would be the New Brunswick Occupational Health and Safety Commission, Mr. Gaudet; the third would be the New Brunswick Conservation Council (I understand there is two, one by Mrs. Harvey and one by Mr. Coon); the fourth would be the Voice of Women, I don't know who the presenter is; the fifth would be the New Brunswick Power Commission, Mr. Doiron; the sixth the Canadian Manufacturers Association, Mr. Cluney; the seventh the New Brunswick Telephone, Mr. Jollymore; the eighth the New Brunswick Fire Chiefs Association Executive; and nine Professor Gary Whiteford.

Dr. Morgan?

MORGAN:

Thank you very much Mr. Chairman. My name is Don Morgan. I'm an obstetrician and I'm the Chairman of the Health Care Committee of the New Brunswick Medical Society. At the outset, Mr. Chairman, I would like to thank you and thank the Minister for the opportunity of addressing the Council. The New Brunswick Medical Society commends the Minister of Municipal Affairs and Environment for initiating these public discussions and we are very pleased at this time to present our brief to the Council and we certainly support the initiative that's been taken to develop a comprehensive waste management strategy.

In the early part of the 1980's, the Canadian Medical Association (CMA) recognized the importance of environmental issues in terms of their impact on the health of Canadians, by establishing a Subcommittee on Environmental Health. Shortly thereafter, the Subcommittee's terms of reference were expanded to include issues related to occupation health.

One of the main objectives of the Subcommittee on Environmental and Occupational Health is to advise the public of health risks associated with environmental and occupation hazards. Since the time of the Subcommittee's inception, it has been monitoring developments in the area of hazardous waste management.

In general terms, hazardous wastes include: existing stocks of substances that have been banned from further production, or that are subject to production restrictions; substances produced as residues or industrial processes; residues from municipal and domestic wastes; and substances that may result from future production processes.

Hazardous wastes can cause direct health problems in cases where the substance in question is ignitable, corrosive or explosive. Indirect health problems can be caused by hazardous waste substances that migrate into drinking water or the food chain. The Subcommittee on Environmental and Occupational Health has stated that:

> "The prevention of such problems requires the legislation, administration, regulation, and enforcement or standards and procedures for the treating, transporting, storing and/or disposing of (hazardous wastes)".

In its 1982 Annual Report to the CMA, the Subcommittee pointed out that provincial legislation is not comprehensive in terms of addressing the problem of hazardous waste management. The CMA therefore passed a resolution encouraging the Federal Government to work with the Province in developing mutually acceptable, uniform standards, criteria and regulations for the management of hazardous wastes. The CMA also approved the following resolution:

> THAT THE APPROPRIATE DEPARTMENTS OF BOTH FEDERAL AND PROVINCIAL GOVERNMENTS MOVE TO REDUCE FUTURE ACCUMULATION OF HAZARDOUS WASTES BY: A) IMPLEMENTING POLICIES THAT WILL RESULT IN THE DEVELOPMENT OF TECHNOLOGIES THAT ARE NOT SO DEPENDENT ON POTENTIALLY HAZARDOUS CHEMICALS; B) DEVELOPING POLICIES THAT WILL REQUIRE CHEMICAL MANUFACTURERS AND USERS TO BE RESPONSIBLE

FOR THE ULTIMATE DISPOSAL OF ALL CHEMICALS; AND WILL PROHIBIT THE MANUFACTURE OR SALE OF POTENTIALLY HAZARDOUS CHEMICALS THAT CANNOT BE RECYCLED OR DISPOSED OF HARMLESSLY; C) FOUNDING CENTER(S) OF TRAINING THAT WILL FURTHER THE SCIENCE AND PRACTICE OF EFFECTIVE MANAGEMENT OF HAZARDOUS WASTES.

In 1984, the CMA approved the Subcommittee's Statement on Health Concerns related to the management of hazardous wastes in Canada, as well as the Subcommittee's statement on chemical substances in the general environment. Copies of both statements are attached to this brief. Also attached is a copy of the CMA's statement on radiation protection, which was approved in 1982.

At the 1985 CMA Annual Meeting, the Council on Health Care and the subcommittee on Environmental and Occupation Health expressed a concern that provincial governments were not acting quickly enough to address the issue of hazardous waste management. The CMA once again, passed a motion encouraging the federal government to "proceed with urgency" to discuss with the provinces, the establishment of "an effective national and/or regional plan for toxic waste management in Canada". Subsequent to that, the New Brunswick Medical Society approved the following resolution at its 1985 Annual General Meeting:

THAT THE DEPARTMENT OF HEALTH & COMMUNITY SERVICES AND THE DEPARTMENT OF MUNICIPAL AFFAIRS AND ENVIRONMENT BE URGED TO STRINGENTLY ENFORCE AND UPGRADE EXISTING LEGISLATION REGARDING 1) THE CONTAMINATION OF DRINKING WATER BY PETROCHEMICALS AND OTHER TOXIC SUBSTANCES; AND 2) THE DISPOSAL OF TOXIC AND HAZARDOUS WASTES.

Copies of this resolution were forwarded to the Minister of Health & Community Services, as well as the Minister of Municipal Affairs and the Environment.

In 1984, Mr. Chairman, the Canadian Medical Association issued a statement on health concerns related to the management of hazardous wastes in Canada. In that statement which is enclosed in our brief there are a statement of principals regarding the management of hazardous wastes.

Firstly, the primary goal of any system shall be the establishment of procedures whereby any waste products that cannot be detoxified or reused in some acceptable way must be effectively isolated from the environment now and in the future. In order to minimize the volume of waste falling into the category described

above, the provision of effective patterns of management of waste products must become an integral part of the licensing process for any product or procedure proposed for use and should involve on-site detoxification and management.

In order to maximize the effectiveness and acceptance of the waste management process the public must have an effective voice and access to all information on an on-going basis. The system must be designed in such a way as to permit enforcement of total compliance to avoid any disposal of hazardous wastes outside the controlled system.

I'd like to emphasize, Mr. Chairman, that in this process health professionals, we feel, should be involved in the assessment of health risks to the community and to any individuals as a result of the disposal of toxic wastes.

In 1984 as well, the Medical Association released a statement on chemical substances in the general environment and the public's right to know. Basically that statement said the following a) that legislation be designed to provide information to the general public on chemical substance to which they are exposed; b) the public be provided with general information on the substances present in the environment and their major health effects; c) practicing physicians be provided with free access to information to a system in the control, diagnosis and treatment of environmentally related diseases; d) responsibility be placed on the appropriate regulatory authority to designate the chemical agents to which the general public may be exposed and the mechanism to provide public information and; e) finally manufacturers be required to report new substance coming into the general environment to the appropriate regulatory agency and provide sufficient data to access their potential health effects.

Mr. Chairman, the Medical Society again appreciates very much the opportunity to speak to your Council and again we would like to reiterate our support for the development of a comprehensive waste management strategy by the provincial government. Thank you.

LAPIERRE:

Thank you Dr. Morgan. I wonder if you might care to answer a few questions please?

You brief seems to indicate at various places that you would be in favor of a specific or new or tighter legislation. I wonder if you have any consideration whether this could be done under various Acts or whether we should have a Waste Management Act which would encompass all these aspects?

MORGAN:

Well, Mr. Chairman, I don't know whether the Medical Society has the expertise on how Acts should be structured but I think from our point of view the key point here is coordination. I think in the management of hazardous waste that this involves not only management in individual provinces but often involves transportation of those wastes across provincial boundaries and so on. I think from our point of view whatever regulatory mechanism is set up, it must be coordinated not only within the province but also between provinces and with the federal government. I would not care to comment to the Council on how that should be carried out except to reiterate our concern that it be coordinated.

LAPIERRE:

A second question. Am I to understand from your comments that if we do not have the proper mechanism for the disposal or destruction of a chemical within the province and an industry produces that, that the industry should not function within the province if it cannot guarantee the destruction or the proper...

MORGAN:

I don't think our brief specifically says that but I think the tone of the brief suggests that if an industry is creating a substance as a result of its manufacturing process that is potentially hazardous that it must be involved financially and otherwise in the destruction of that substance. Once the substance is created there has to be a facility available to shepherd that substance from the time of its creation until its ultimate destruction so that a health hazard is never presented to the general public. In saying that, if a company I would assume is producing a substance in the province and has no means of either transporting that substance to an area where it can be either safely stored or destroyed or have means to destroy it itself that should be a great concern to the government.

LAPIERRE:

Thanks a lot Dr. Morgan. The next presenter would be the New Brunswick Occupational Health and Safety Commission, Mr. Gaudet.

GAUDET:

The Occupational Health and Safety Commission (OHSC) is pleased to have this opportunity to participate tonight.

The Occupational Health and Safety Commission is a tri-partied body made up primary of representatives of employers and employees of which I am the Chairperson.

The Legislation mandates the Commission to ensure the health and safety of working populations in the Province. Self employed persons are not covered for enforcement purposes under the legislation but we certainly try to get those groups to comply with the intent of the legislation. The Commission carries out its mandate primarily by three means; namely, 1) enforcement of OHS act and regulations made under the Act and regulations; 2) consultation with the employers and workers in finding ways and means to improve the working conditions and; 3) providing information and training of employers and workers on safety and health matters.

As the name implies, the Commissions's legal responsibility is limited to the working population, however, the commission considers it has a moral responsibility for the protection of the general public and the environment from chemical or physical agents that may originate from places of work. The Commission believes that the public health and the protection of the environment are well addressed by special interest groups and a number of federal and provincial government agencies. In this presentation, I would like to address some concerns the Commission has identified to assist you in developing a hazardous waste management strategy.

Whatever way waste is generated, a human element is ultimately involved in the final destiny of the material, under normal operation workers are involved in the treatment or handling of waste at the point of generation, during transport and at the waste disposal site or facility. Emergency response workers such as fire fighters are also called upon to assist in abnormal situation.

Therefore, workers are directly exposed to potential hazards both in the short term and in the long term. The situation is further complicated when the materials they have to handle are of unknown origin or content. In the short term, the workers are exposed to high concentrations of corrosive or toxic materials, infectious biological agents, explosive materials and to physical risks resulting from equipment used. In the long term, there is the risk of contraction occupation diseases resulting from long-term, low level exposure to toxic agents. The degree and extent of the long-term health effects cannot realistically be quantified. Workers covered under the provisions of OHS Act are somewhat protected. There is a need however, to protect the self employed and contract workers in the development of a waste management strategy.

In the last year we have seen four accidents that were in general terms, connected to disposal of waste. All of these, we consider, could have been prevented. A review of these incidents might provide means to understand the nature of occupation health and safety problems and may provide some ideas in formulating a safe waste disposal strategy.

Two of the accidents were explosions that can be considered to have resulted from the recycling of waste. Both accidents involved large empty tanks which were thought to have contained flammable liquids. When welders started cutting, flammable vapors in the tanks ignited resulting in explosions. We had an recent incident in Saint John a couple of weeks ago which is not one of the incidents I'm referring to. One of the explosions claimed the life of a worker and in the second case, by some stroke of luck, the lives of several persons were spared.

In the third incident, a laborer had been instructed to dispose of several jars of unknown chemicals. When he did, he was overcome by corrosive dusts and fumes and had suffered serious injuries to his lungs.

And the fourth incident involved a self-employed dump attendant working on a contract basis. The man was 81 years old and was partially deaf. He was run over and killed by the earth-moving equipment.

The points we would like to make here are first that waste materials that have a potential to explode be included in the definition of "hazardous waste" and treated as such. Perhaps by rendering them harmless in a similar manner empty pesticide

containers are disposed of. Some other waste materials that would qualify in this category are live ammunition, empty gasoline tanks from motor vehicles. We see that these type of hazardous materials are being disposed of in some dumps and the dump attendants, usually contract employees, are being subjected to potentially hazardous situations.

The second point we would like to make is that uninformed, untrained and unprotected workers should not be permitted to work in waste disposal work. A lot of the time, the chemicals being handled are unknown and who knows, could very well belong to the hazardous waste category. This type of accident and indiscriminate disposal can very well be prevented if these chemicals were collected by a qualified agency.

The last accident we described would make the point that the dump attendants should not be arbitrarily appointed. They need to be physically fit to undertake the assignment.

Section 42 of the OHS Act provides that the employer at every place of employment must prepare a list of all hazardous agents present at the place of employment. There is also the requirement under Section 9 of the Act, which details employers duties that the employer acquaint the employee with any hazard to be found at the place of employment in connection with the use, handling, storage, disposal and transport of any tool, equipment, machine, device or biological, chemical or physical agent. The intent of these provisions are to keep the workers informed of the hazards associated with the materials they may come in contact with so that the workers can take measures to avoid the hazards. This requirement provides an opportunity for the employer to review and eliminate hazardous substances which may not be required for the work process. If some mechanism is made available to collect these unwanted hazardous materials on a periodic basis, one can reasonably assume that these materials would be disposed of in a safe more controlled manner in appropriate facilities.

OHSC receive inquiries from the general public and from small industries concerning materials of unknown origin or unknown composition. They include materials such as asbestos cement, pipe insulations, paints, oils, etc. We advise them that they should contact the Department of Environment regarding disposal. Unless the inquirer is very concerned about the environment, he probably takes the easy route of dumping the material with domestic garbage. This also reiterates the need for some sort of periodic collection arrangement.

From OHSC vantage point we believe that the larger hazardous waste producers in the Province are well organized in dealing with the waste materials in terms of equipment, personnel and procedures. The smaller hazardous waste producers on the other hand are not efficient with their disposal practices because of lack of knowledge and economic constraints.

OHSC share the view with those who consider that certain hazardous materials like asbestos can safely be deposited in special dump sites without undue risk to the environment or the public. The particular concern we have at the moment is the practice of temporary storage of hazardous waste at work sites until the waste is permanently disposed of, the workers in their places of work are at a greater risk. It also may involve the handling and re-handling of the same materials over and over again. Because of the relatively small quantity of hazardous waste like PCB generated in N.B. which require specialized treatment, we believe that such material can best be dealt with by sending out to hazardous waste treatment facilities in Ontario and Quebec.

As a fundamental occupation health and safety measure, where possible, we require the substitution of industrial toxic materials with safer materials. This would increase the degree of safety in production and hopefully safety in the disposal or waste. We also encourage pre-treatment and recycling of waste products as we are convinced that waste can best be handled by the waste generators themselves.

The general public is becoming increasingly aware of the potential hazards from hazardous waste to their health and environment. Some of the concerns they express are real, while some are based on speculation. We are convinced that there is an important need for public education on matters related to public health and safety and effects on the environment due to hazardous waste.

We congratulated the Department of Municipal Affairs and Environment for the proposed Environmental Impact Assessment process. This, in our opinion, should resolve most of the issues up front, rather than try to find solutions after damage is done to the environment or to public health.

Hazardous waste management crosses intra-provincial jurisdictions, notably OHSC, public health and the environment. It also has inter-provincial and international responsibilities. We believe the waste disposal issue can best be handled by an agency within the Department of Municipal Affairs and the Environment.

We recognize that there is at present a working arrangement within the Department to handle the question of hazardous waste. What we would like to see is that arrangement broadened in scope to include additional functions, possibly fortified with legislative powers. Salient functions such an agency in our view should have are:

- Provide information and increase awarsness among general public and industry on matters related to hazardous waste disposal;

- Registration of qualified personnel and collecting and temporary storage depots of hazardous waste;

- Responsible for safe operation of hazardous waste treatment or dump facilities;

- Prepare and routinely update a hazardous waste inventory and keep a tract to their final destiny;

- Co-ordinate inter-departmental, inter-provincial and international functions related to hazardous waste.

Some of these functions we recognize are currently being done either directly or indirectly by the Department of Municipal Affairs and Environment and we think it's critical that one agency be seen to have the responsibility and also be accountable.

In conclusion, we would like to thank the N.B. Environmental Council for providing this opportunity, and for our part, we would like to extend our full co-operation in the development of a waste management strategy for the Province of N.B.

LAPIERRE:

Thank you very much Mr. Gaudet.

GAUDET:

I have with me Mr. Imbulgoda who is a certified industrial hygienist so if there are some issues that I'm not competent technically to answer, if you have any questions I will defer to him.

LAPIERRE:

OK, I wonder if you may answer a few questions. Would the employees of municipalities fall under Section 42 of your Act?

GAUDET:

Yes, they would.

LAPIERRE:

So that would mean that any employee, municipal dump employee should have a knowledge of all the chemicals that are disposed of in his working environment?

GAUDET:

Yes, but because of the size, the Commission, and because of its resources, the Commission is primarily focussed on larger work site operations and larger places of employment. Basically, a health and safety committee is obligated by law in place of employment that have over 20 employees so even though the Act applies I guess it's fair to say that our limited resources have really not permitted us to be as aggressive as maybe we should be in not only the enforcement but in the education and the promotion of these kind of safety factors. Clearly for the identification of the chemical products and their content, that particular provision applies unless they are private contractors which some of them are.

LAPIERRE:

Yes, I know. I asked the question specifically for municipal employees. The other question I may ask of you is you mentioned that hazardous wastes or toxic wastes should be collected and stored. I wonder if you have any idea of how you think this should be done? Should we have large centres where people can go and bring, you mentioned that some people have these wastes at home and they don't know what to do with them. Do you think we should have regional collection, should we have small areas within cities, for example, where people know that they can bring their wastes to? Should it be open at all times? Or should we have regional sites or how many of these sites should we have? Or maybe just one local, central area in the Province?

GAUDET:

Well I guess that I would say that it probably depends on the toxic nature of the substance we're dealing with. And that maybe for the most dangerous substances that provided that it is known where they are and if the employer contains them in a particular safe environment for a period of time that maybe if there is a particular collection system whether it's organized privately through the private sector or it's been approved by a government agency such as the Department of Municipal Affairs and the Environment. I guess it would depend on the toxicity, the level of toxicity of the particular chemical product. If we're talking about PCB's I guess we all acknowledge that it's pretty serious and that maybe we need some type of broader collection arrangements where, in effect, we may bring the material to a different province. So I guess unless Bandu wants to elaborate on that, it would depend on the level of toxicity.

LAPIERRE:

Well, if we go to the Lutes-Estey report we find in there the full series of chemicals that are present in the Province. Would you consider all of these to be collected at the central depots? PCB's are not something that everyone should have in his basement.

GAUDET:

No, I would have to defer that to Bandu. Bandu do you want to react to that?

LAPIERRE:

My question is.....do you think that all the chemicals in the Lutes-Estey report should be centralized within these collecting, temporary storage depots?

IMBULGODA:

(tape inaudible) categorized as hazardous wastes should be collected.

LAPIERRE:

Anything that's categorized as hazardous wastes? OK, I guess that answers my question. Are there any other questions? Well, I guess I thank you very much Mr. Gaudet.

The next brief is a brief of the, I understand two briefs of the New Brunswick Conservation Council and Mr. Coon or Miss Harvey. Are there two briefs?

COON:

There are two.

LAPIERRE:

Will you be presenting both briefs Mr. Coon?

COON:

No. I will be presenting one on prevention and Miss Harvey will be presenting the second on remediation.

My name is David Coon and I am Policy Coordinator with the Conservation Council and I'd like to congratulate the Minister of Municipal Affairs and Environment for holding these public hearings around the Province. It's really nice to see. We haven't seen this kind of thing in the past from the old Department and I think that that's a very positive move.

The Conservation Council, I should mention is not to be confused with the Environmental Council. The Conservation Council is a citizens environmental group with a membership and a voluntary Board of Directors from around the Province and a small staff of environmental advocates.

As I was working on the brief for this evening, I realized that what we are dealing with is a very difficult issue to cover comprehensively in a single meeting and I guess what it really did for me was underline the need for meaningful true consultation process, an ongoing process of consultation to develop a hazardous waste management strategy for New Brunswick and these public meetings are a good start. All we can hope to do is scratch the surface.

I guess generally there's little disagreement among governments, environmentalists, industry and the public about the nature of the threat posed by hazardous wastes to the environment and public health. Toxic chemicals dispersed into the environment can contaminate drinking water supplies, move up the food chain and ultimately contaminate food supplies, contribute to ecological deterioration by adversely affecting the health of animals and plants and so on.

The controversy erupts when we begin to discuss the size of the problem, what responsibility lies with whom for managing chemical wastes, who is liable in the event of pollution or even worse medical problems and what kind of strategy ultimately is required to manage hazardous wastes. It's that the poisoning of some 63 and counting household water supplies in Fairvale by a dry cleaning solvent underlines that problem. Upon until CBC's Fifth Estate ran a documentary on PERC in the Maritimes in April 1985, provincial environment department's hazardous waste inventory report no hazardous wastes for dry cleaners. A survey carried out in response to that documentary found that close to 7 tonnes of dry cleaning solvent wastes are generated annually. That would be sludge contaminated by dry cleaning solvents. That's a bit disconcerting, that's only one very specific chemical waste with a relatively small number of size of generators. One wonders what's out there that doesn't lie in the inventory.

The only safe method that's generally agreed to by Environment Canada and Environment New Brunswick for disposing of a chemical like PERC is high temperature incineration. There are no facilities in Atlantic Canada for doing that, the cost of shipping and disposing of a 45 gallon drum of PERC contaminated sludge, about the amount that a small dry cleaner would produce every year, it between $300-400 but there are no laws requiring dry cleaners to treat their wastes in that manner. In fact the past Minister of the Environment stood up in the Legislature last April and stated unequivocally that he saw no reason not to allow the dumping of this particular hazardous waste.

As far as responsibility goes, the Department of Environment is holding the dry cleaner responsible. The dry cleaner is claiming that he didn't break any laws and is appealing the control order that's been placed on him two months after the problem was discovered. The affected Fairvale residents are still without safe household water supplies and the only visible source of contamination that remains is the soil laden with PERC around the dry cleaner which still has not been removed. Perchloro-

ethylene is but one of hundreds of chemicals that make up the hazardous waste stream in New Brunswick and I guess before we can really discuss any strategy to manage hazardous wastes in this province, we've got to know the size and nature of the problem. And that leaves me to focus specifically on the inventories that have been done to date for New Brunswick.

The New Brunswick Department of Municipal Affairs and Environment's most recent inventory reports about 1,800 tonnes a year as hazardous wastes that are produced in the Province, while Environment Canada's last inventory reports about 46,800 tonnes of hazardous wastes a year in New Brunswick. This difference is quite disconcerting and it's very critical because of course how you deal with the problem is very much related to how big of a problem you've got.

The authors of the provincial inventory explain in their discussion that they found less than 4% of the hazardous wastes estimated by Environment Canada because of a difference in philosophy. According to their published inventory, the decision, and I quote, "as to which waste materials to include as hazardous was somewhat subjective" and the decision was really made arbitrarily by the authors rather than on the basis of a definition or guideline.

Environment Canada, however, and a number of the other provinces subscribe to the definition of a hazardous waste arrived at in 1979 by a federal/provincial task force which New Brunswick was involved with, I understand. Essentially it was this, hazardous wastes are those wastes which due to their nature and quantity are potentially hazardous to human health and/or the environment and which require special disposal techniques to eliminate or reduce the hazard.

The task force went on to describe two main characteristics of hazardous wastes, reactivity and toxicity. Reactivity was defined as "the tendency of a waste to react or undergo change under specified chemical or physical conditions". Reactive wastes are those that are corrosive, interactive, bioaccumulative, radioactive, explosive, and ignitable. Toxic wastes include those that are lethal, and those that have the potential to induce cancer, birth defects, genetic mutations, infertility, and disease.

New Brunswick was represented ont his task force with the rest of the provinces, and representatives from industry. Why has New Brunswick decided to go its own way, and allow a few bureaucrats to arbitrarily decide what wastes are hazardous?

This bizarre decision has proven to be a source of conflict between the provincial and federal departments of environment. In fact, the Conservation Council understands that the province has made it clear to Environment Canada that they are not welcome to distribute their educational materials on hazardous wastes, nor would any screenings of their slide show be appreciated on that topic in this province. As I said this is a critical issue, this difference because the Environment Departments whole strategy is based on a very small inventory of wastes that is, that hazardous wastes as designate by the bureaucracy will be shipped out of province and those wastes that don't rate the hazardous label will be designated as controlled wastes and buried in the ground in rural New Brunswick in landfills.

So, the Conservation Council is recommending first and foremost that the province adopt the definition and technical criteria for designating hazardous wastes in Canada that was worked out by industry and government on both levels and further that a new, more comprehensive inventory be undertaken applying that definition and those technical criteria.

Just to give you a feel for what might be there, Environment Canada in fact did undertake an inventory of about 44 waste producers, something like about 20% of the total wastes in the province, potentially. This was back in 1979 and was done by a questionnaire and they turned up about 34,500 tonnes of waste a year as reported by the generators themselves that would appear to be hazardous based on the definition. And that about 62% of those were being disposed of improperly and some 1,700 tonnes, about the total amount that the province estimates is produced, should be dealt with at a special hazardous waste treatment facility.

You mention hazardous wastes to most people and it conjures up the image of PCB's and dioxins, something I'd like to call designer chemicals, but these fashionable toxics make up only a small fraction of the hazardous waste stream. What I'd like to briefly do is paint a picture of what the nature of the beast really is. Commonly household toxics which end up as hazardous wastes would include pesticides, paint thinners, over cleaners, spray paint, antifreeze, hair dry, disinfectant, toilet bowl cleaners,

nail polish removers, wood preservatives, furniture cleaners, spot removers and on and on and on.

Certainly commercial establishments in industry generate the greatest portion of hazardous wastes in the Province. The largest industrial generator being Irving Oil's refinery making up about 40% of the wastes followed by the Province's pulp and paper mills making up about 1/3 of the wastes. Oil refiners typically generate wastes such as toxic metals, tank bottom sludges and toxic organic chemicals. Pulp and paper mills can generate acids, alkaline wastes, pesticides, toxic sludges, solvents, waste oils and PCB's in retired electrical equipment. After we have passed oil refinery and pulp and paper, we're into chemical, non-metallic, mineral, electrical, textile, rubber, metal fabrication, transportation and wood industries.

I think that the most salient point here is according to the National Research Council in the United States we have only about 10% of some 53,500 chemicals in commerce today, do we really have comprehensive information on vis a vis their health hazards.

The Conservation Council feels that what health and safety information does exist regarding potentially hazardous substances should be readily available to government workers and citizens. So we recommend that a right-to-know legislation be enacted in New Brunswick to give employees and community residents the right to know what potentially hazardous chemicals and other substances are being manufactured, stored, used or disposed of in their workplace and neighbourhoods.

As far as the hazardous waste management strategy goes for New Brunswick, I'd like to say that waste management isn't a fancy term for waste disposal. It is a comprehensive approach to managing wastes in the Province and I guess I find it somewhat disconcerting that the nature of the proposed waste management strategy that the Department of Environment is, at this point, tabling at an early state albeit, is that it really is a waste disposal strategy calling for isolated landfills for the so-called controlled waste, and export of the balance of so-called hazardous waste. I almost sense from reading through the materials that were circulated for these public meetings that the Department seems to think that hazardous waste problems in this Province are caused by citizens who refuse to accept dumps or storage facilities in their communities rather than a type of commercial and industrial activity that produces more and more of these kinds of wastes.

The Conservation Council has been urging the provincial government to develop and implement a comprehensive waste management plan for some years now. A plan such as that would include provisions for reduction to attack the problem at its source, and find a way to reduce the wastes that are produced at the manufacturing stage. Provisions for reuse to create an effective waste exchange system for the Province. Provisions for recycling to recover chemicals from the waste stream to be reused as raw products again, provisions for collection and transportation to provide an economically feasible and environmentally safe means of collecting wastes from industries, businesses, institutions and households and transport them to storage and/or treatment facilities. Provision for storage, to provide secure storage facilities for those unavoidable wastes that reduction, recycling and reuse can't handle so that they can be held while awaiting treatment and disposal. Provisions for treatment; to treat those unavoidable wastes to ensure that their hazardous properties are eliminated or minimized. This would include destruction through high-temperature incineration. And finally provisions for disposal of any residues after being treated that are left, presumably and preferably in solid form in a properly engineered, controlled and monitored landfill facility.

It's generally recognized in most European and North American jurisdictions now that untreated hazardous wastes should not be buried in the ground and the Conservation Council urges the provincial government to adopt this principal and that is that landfilling of hazardous wastes should be used only as a last resort after consideration of other options including those as I mentioned.....waste reduction, recovery, reuse, destruction and treatment. We'd recommend that the three R's, reduction, reuse and recycling be made a cornerstone of the waste management strategy for New Brunswick. Our colleagues in Ontario at Pollution Probe have produced an excellent publication entitled "Profit from Pollution Prevention" which documents, it's a guide for business, which documents hundreds of success stories, both large and small firms that have turned waste problems into financial assets. However, they also identified a whole multitude of barriers to the private sector doing that and in my written brief which I'll leave here with you, we've listed a good number of recommendations for overcoming some of those barriers, such as the lack of financial incentives. The problem with current pricing, waste disposal pricing; the existing pollution control standards which in fact could be seen as barriers; lack of appropriate legislation; the lack of information on reduction and recycling potential.

Let me just skip over collection and transportation, essentially we are of the same opinion as the last speaker, that there must be a mechanism in place by which, he didn't actually spell this out, but household toxics be picked up at the curb and be transported to transfer stations. Similarly that small waste generators would have access to a similar kind of service, farmers, woodlot owners, small hazardous waste generators, such as dry cleaners and sheet metal fabricators and so on.

The final thing I'd like to say about a waste management strategy is that overall Environment Canada estimates that there's an annual production of about 175,000 tonnes of hazardous wastes in Atlantic Canada. That's similar to what's produced in Alberta every year. Hazardous waste treatment facilities are planned by provincial governments in Alberta, Ontario and Quebec and the Conservation Council would urge the province to enter into discussion with the other Atlantic provinces with the purpose of establishing such a facility in our region of the country.

I would say that the proposed policy of controlled waste dumps at this point does not appear to subscribe to the general principal that landfilling is a strategy of last resort.....that, in any kind of on-going consultation process which I hope you recommend from these meetings, that disposal sites ultimately be selected in an open manner with genuine public consultation. Provisions must be made for intervenor funding so that the public and its interest groups can effectively participate in a consultation process. The closed nature of the preliminary selection process for the so-called controlled waste sites in New Brunswick at this point appears to conflict with the spirit of genuine and open public consultation.

Before I close and I'm sure I've gone overtime I would just like to address one thing and that's the not in my back-yard syndrome which every enjoys addressing at one time or another and throwing their hands up in the air about. But I'd like to point out that it's not just out of ignorance that people say no to dumps and storage facilities and treatment sites, but rather out of a lack of confidence. One only has to list the past errors such as UFFI, the IBT scandal, dry cleaning solvent in Fairvale. Understand that the public's mistrust of government assurances should now be considered normal and even desirable. The not in my back-yard syndrome must be understood as a normal healthy reaction on the part of the public that understands government indifference only too well from past experience.

I profoundly hope that the provincial government is prepared to embark on a genuine consultation process to develop a comprehensive hazardous waste management plan and these meetings are a good start because if they don't I think that we will be facing a Renous-style opposition at every turn of the crank. The Conservation Council, incidentally, has been instrumental in developing ground rules at the national level with industry, federal government and labour for meaningful consultation and we'd be happy to make those available.

Last of all, I was pleased to hear the Canadian Manufacturers Association is addressing the panel this evening. Thus far I was a little concerned that there seemed to be an important element missing from the whole public debate about hazardous waste management and that is that very few waste producing industries had entered into the debate. We may well wonder why producers have thus far remained, at least publicly, silent. Could they be hiding something from us? For example, sites that they've been dumping their wastes in the last 25 years. Or could it be related to the weakness of our environmental laws. Why really should industry complain when the New Brunswick government still tolerates dumping of untreated industrial wastes into landfills or water bodies. Perhaps we should label industry's position as one of enlightened silence. Currently the chain of responsibility for waste products really inhibits any efforts by industry to reduce hazardous wastes at source, since producers can still pass on responsibility up the line from themselves to the transporter, to the dump, ultimately. Perhaps we should adopt legislation that explicitly stipulates that a producer is responsible for a waste product from it's production until it's final destruction or disposal. My colleague will speak to the cradle-to-grave kind of approach. I will leave my brief here with someone.

LAPIERRE:

Sure you could leave it here. Thank you. I wonder if you might care to answer a question.

COON:

If I don't get lynched for taking too much time, sure.

LAPIERRE:

Yes, I know, I'll ask just one short question. I have more but I'll just ask one. One your curbside pick-up and collection

of hazardous wastes, it seems to me that one would not want to leave one of these containers just by the roadside to have a truck come by through the night sometimes without any ah...so you'd have to have an elaborate system in which you may call before and someone may come and pick it up. How would you propose this project could be funded? Would it be user-pay type system?

COON:

Presumably, ultimately yes. And I would see it as a municipal responsibility more than anything. But I would see the Province playing a leadership role in getting the ball rolling on it. And it really is part of a much larger discussion which we don't have time for but that is, the municipal waste stream and how we deal with that. If we had the time to talk about things like recycling of solid waste, municipal waste, when you start to source separate garbage I think there are opportunities there at the household level and the small business level to assure that things are handled properly but, it would require significant discussion certainly.

LAPIERRE:

OK, well thank you. I have another question but I think I'd ask Mr. Estey to think of it for later on, if you address maybe the discrepancies in the figure of hazardous wastes in the report versus hazardous wastes in the federal. I know it could be the basic of semantics but I think it's an important point. So, thanks a lot Mr. Coon.

Miss Brown?

If at all possible, we'd like to try to keep the interveners to ten minutes, if at all possible.

BROWN:

I wish you'd waited to remind people of that before I started Louis. However, I'll do my best.

I wish to thank you again for the opportunity to address this very special and serious problem of waste management in New Brunswick and particularly that of hazardous waste management. As Dave Coon has already suggested I think this is a good first step. I think we need a whole lot more of this to happen before

we ultimately find the best way of dealing with our hazardous waste problem in this Province.

Tonight, I want to talk about four things and I'll be as brief as I possibly can. The first is I'm going to place the work being done on the future management of hazardous chemicals into a national perspective. I'm going to discuss the critical problem of remedial measures to deal with the messes that have already been created. I want to point out issues related to compensation for damages as a result of contamination from hazardous materials and I want to discuss liability and safety questions in the area of transportation of dangerous goods.

I apologize that I do not have a copy, actually I do, there's one copy of my brief that maybe we could make available right now.

Since September 1985, I have been actively involved in a task force struck by Environment Canada to develop what we have termed "A New Perspective on Chemicals and the Environment." This task force is preparing the policy paper on which Environment Minister Tom MacMillan will base what he has termed "the most comprehensive chemicals management program in the Western Hemisphere". While the members of this task force have not been so bold as to make such a suggestion, the work that we have been doing is a critical first step to the implementation of a chemicals management program which addresses all stages of the life of a chemical, from research and development to ultimate disposal, as well as a feedback system which should indicate the success of such a management program in terms of environmental quality, as well as other criteria.

This task force is comprises of individuals actively involved in the issues related to toxic substances, from the development and manufacture (Dow Chemical, Imperial Oil, Canadian Chemical Producers Association), to regulation (Environment Canada, Quebec Department of Environment, Ontario Department of Labour), to industrial developers (Department of Regional Economic Expansion), for workers (Energy and Chemical Workers Union), to users (consumer's representatives), to the national municipal waterworks association, to environmental interest groups (Friends of the Earth and Conservation Council).

In order for a group of such diverse interests and opinions to work productively together, we have employed a very unique process of consultation, which allows for full participation of

all interest sectors. Decisions are made on a consensus basis, with the provision for dissenting reports to be made if consensus cannot be reached. So far, such a situation has not ocurred, and our final report will be issued sometime in April. The fact that this report has been generated by a consensus-building process which incorporates all the major interest groups gives it a great deal of credibility with members of all the represented groups. This feature has lent the report the weight the task force sought, particularly within the federal government.

The system which we have developed in order to sort out the whole complex issue of toxic chemicals management is one which we call the "life cycle approach". This approach sets out a framework which more or less characterizes the movement of a chemical and within that framework identifies minimum requirements for the safe handling of the chemical. The stages of the life cycle are: research and development; introduction, manufacturing; transportation, distribution; use; and disposal.

While the life cycle approach is most easily followed within the chemical development and manufacturing industry, the same rules apply to any operation which, as a result of a manufacturing process, produces hazardous by-products, or uses hazardous products in the manufacture process or in the delivery of a service (the user stage).

The existence of hazardous chemicals has created societal problems due to release to the environment through manufacture and use, or through the ultimate disposal of wastes. Solving these problems is especially difficult, since responsibilities within each of the stages of the life cycle lie with parties, and span various regulatory jurisdictions. Consequently, the task force members recognize that any effective system of managing hazardous chemicals, including wastes, must be comprehensive in nature, requiring the co-operation and co-ordination of all parties. A "leak-proof system", as much as it is possible, is only so if a "cradle-to-grave" approach to management is adopted as a national task and a national commitment. This means that the development of any strategy for handling hazardous wastes must be integrated into the overall lifecycle management system.

Let me review with you some of the requirements of the life cycle system, as proposed by the task force, which pertain to the management of hazardous wastes. I will deliberately avoid the disposal stage, since David Coon has incorporated these requirements into his recommendations.

1. Research and Development:

- disposal of toxic samples should be in accordance with good disposal practice, notwithstanding that small quantities are involved (especially pertinent to universities where we are dealing with the research and development stage or with use in experimental projects).

- guidelines and procedures for the development of alternative processes, including those for reduction, recovery, re-use or recycling of wastes. That's where you start with your 4 R's right at research and development and if you don't start at that stage then you're missing opportunities to eliminate the waste that are going to be generated and finally dumped or disposed of down the line.

2. Introduction:

- specification of disposal options and procedures for every hazardous product;

- prepare comprehensive information/data packages for worker, user and public purposes to include the Transportation of Dangerous Goods classification, consistent with the Act and Regulations;

- develop consistent regulatory frameworks among the federal and provincial governments;

3. Manufacturing:

- re-evaluate and set new effluent standards to ensure that a) standards are based on environmental loadings, both point and non-point, rather than concentrations, I put the points in here about effluents because in some cases effluents are seen as wastes and in essence they are by-products of a manufacturing process which can and often do contain hazardous substances; b) there is consistency among jurisdictions; c) there is strict enforcement to include industry, federal, provincial and municipal governments and agencies, including responsible officials, enforcement is certainly one of our major problems; d) statistics on compliance are kept and published on a fair and regular basis.

- the Workplace Hazardous Materials Information System (WHMIS) should be implemented as soon as possible. That is an information system which I identified. The nature of the materials that workers deal with within the workplace, the hazards, what the appropriate uses or the appropriate handling procedures are, what emergency operations may be in the case of misuse or accidents, etc.

- establish a review of existing standards and codes with respect to plant compliance and the application of the 4 R's, the manufacturing stage is the critical place where the four R's are going to come into play for the reduction of the ultimate product that need to be disposed of.

- responsible means of effective auditing of contract services should be put in place, for both on-site and off-plant/downstream applications.

- standards and codes of practice should be developed for decommissioning of plants and/or processes at the time of siting/establishment, for application at the end of the useful economic life.

- industry should adopt a "responsible care" philosophy of product stewardship, which means preparation and dissemination of all appropriate information, and procedures to insure information transfer to all subsequent life stages and that would include appropriate disposal methods.

- standards and codes of practice should be developed to ensure reliable implementation of responsible care and product stewardship.

4. Transportation:

- implement the Transportation of Dangerous Goods regulations uniformly across all Canadian jurisdictions. I understand that the New Brunswick Department of Municipal Affairs and Environment is considering a modified Transportation of Dangerous Goods regulation and we need to have uniformity across these jurisdictions.

- in addition, develop standards/codes of practice for: pre-loading; loading; unloading; vessel inspection; information transfer; training;

- design and implement transportation emergency plans, with regard to the Transportation Emergency Assistance Plan (TEAP) developed by the Canadian Chemical Producers Association, the need for response centers with appropriate personnel, the TDG Act requirement for emergency systems, and the responsibilities of importers of hazardous goods as well as domestic manufacturers.

- the need for consistency of standards regarding carriers and routes, ie. the need for a model municipal by-law and standards for approved carriers.

- measures to ensure appropriate public information to the community, noting community "right-to-know", existence of available emergency response arrangements, emergency procedures, etc.

- auditing is essential to measure performance, check the system and correct for compliance.

5. Distribution:

- this is both a key link in life cycle management, and a potentially weak link in the chain which can be easily broken. Special efforts will be required with respect to two key sub sectors: 1) small and medium-sized enterprises engaged in packaging, wholesale or retail distribution, storage etc.; and 2) imports.

- it is easy here to lose track of chemical identities and chemical pathways through such activities as repackaging and relabelling. There is a need for good tracking systems to ensure that "responsible care" standards are maintained.

6. The Users

A. Industrial/Institutional

- implement the WHMIS for this sector as soon as possible. I should have mentioned this before, it's an agreement that has been developed in conjunction with the labour industry and government, the federal government, and it was developed on the basis of very long standing consultation. It needs to be now adopted as legislation in all the individual provinces in order to make that effective.

- adopt other steps recommended for the manufacturing stage as appropriate to all industrial and institutional users of chemicals, including principle of 4 R's, etc.

B. Consumers

- design and implement a "Consumer Hazardous Materials Information System" (CHMIS) as an extension of WHMIS to include: a) an effective and complete information transfer system for the consumer sector; b) includes both general and product-specific information; b) a code of practice for the environmentally responsible consumer.

- information programs should include all aspects of product safety, handling use, misuse, storage, emergency action, disposal alternatives, ingredients disclosure and health hazards, and alerts for hypersensitive populations.

- effective consumer assistance access programs should be put into place, with programs to advise consumers on alternative products and alternative practices to the use of hazardous chemicals (reduction of waste).

- consumer licensing for specific chemicals should be considered, with reference to similar programs such as the Alberta licensing of pesticide users. The Canadian General Standards Board and the Canadian Standards Association should be consulted in this regard.

As you can see, the work of this task force is extensive. Each and every stage in the life of a chemical, or the generation of hazardous wastes has implications for another. Certainly, the way we handle hazardous materials throughout their useful life, or our avoidance of them, has broad implications for the problem of disposing of them at the end of the road.

The development of any management plan for the disposal of hazardous materials must take into account each stage of the life cycle, since the principles of waste reduction, recovery, re-use and recycling are central to any good waste management strategy. These practices by nature occur before the disposal stage.

The jurisdictional problems which arise from such an integrated approach are not insignificant. The sense of territoriality throughout federal and provincial bureaucracies is rampant. The controversy between Environment Canada and Environment New Brunswick

over hazardous waste inventories is a classic example of how inconsistencies in approach result in inadequacies in implementation. Within such an uncoordinated and uncooperative climate, there are many weak links in the chain, I shouldn't single out Environment New Brunswick either. I think every province has this problem with the federal government but weak lines mean flaws -- a leaky system.

On first exposure, the requirements for comprehensive management of toxic chemicals appear to be overwhelming, in terms of implementation and cost. However, the intention is not to do everything tomorrow. Indeed, the strategy is meant to provide a checklist for prioritization of activities, as they are appropriate to different sectors. Also, depending on what step is to be taken, responsibility lies in different hands, and action can be taken by all parties, either unilaterally, or in co-operation, as long as the framework is followed. For New Brunswick at this point, the priority is to get into place a system which meets minimum requirements for waste management. This should not be done in a vacuum, or without reference to the other steps involved in the life cycle.

The argument that proper handling, management and ultimate disposal of hazardous chemicals is too expensive to implement for New Brunswick is the best justification for jurisdictional co-operation and standardization. It is, in fact, the only responsible way to go. If subsidies are needed in order to meet requirements, our full participation in a national cradle-to-grave management strategy will be the best argument in favor of financial assistance. Getting toxic chemicals under control is a national priority. We cannot afford not to play the game.

Remediation

While the principle on which the Task Force on New Perspectives on Chemicals and the Environment based it's work was one of prevention, we cannot ignore the specter of pollution problems and contamination which have resulted from the improper disposal of hazardous substances in the past. And while it is relatively easy to designate responsibilities for action within a prevention system, the waters muddy when it comes to assigning liability or cost burdens for either inadvertent or deliberate dumping of hazardous wastes into abandoned or closed dumps, or along road sides, in fields, down sewers and into rivers, lakes and streams.

As groundwater contamination and other pollution problems related to industrial activity emerge throughout the Province, the issue of remedial measures becomes an imperative. The Dow Chemical blob on the bottom of the St. Clair River is an extreme example of how past practices can come back to haunt us. Apart from the blob's lesson that it is cheaper to do it right in the first place (prevention vs. cure), it also teaches us that we cannot expect past mistakes to remain hidden and insignificant forever.

A joint federal/provincial survey of closed and abandoned dumpsites in New Brunswick which attempted to assess the condition of those dumps begins to address the issue of remediation. This survey identified 190 known sites. However, there is no question that many unknown dumping grounds exist. It also omits dumpsites on military bases (we know of at least one on each CFB Gagetown and CFB Chatham). Many active sites are presently receiving or have received in the past industrial and hazardous wastes, but the criteria used to assess the condition of the closed dumps were not applied to sites still in operation.

The survey used a point system to evaluate the condition of the dumpsites, based on sixteen criteria. These criteria ranged from the proximity of the site to wells or municipal water supplies to whether the sites is covered or uncovered. Based on this evaluation, nine sites were classified Priority I, 45 sites were classified as Priority II and the balance as Priority III.

Some action to determine the extent of the risk in two of the Priority I sites has been taken. No attention has been paid to Priority II sites. Conservation Council is concerned, however, that the distinction between the first two categories have been artificially made in the minds of government officials and the public, and that this distinction may be totally misleading, causing potentially dangerous inaction. There is also concern that the survey seriously underestimates the types and quantities of hazardous wastes present in those sites.

The presence of hazardous materials in these sites was determined by visual inspection. That means that the only hazardous wastes which would have been detected were those delivered to the sites in containers that have not deteriorated, and that are somehow recognizable as hazardous waste containers. It is not surprising that the only chemicals "of major concern" identified in the dump inspections were pesticides. There would be no indication of liquid wastes from tankers, or any other waste delivered unpackaged.

Consequently, this survey almost certainly drastically underestimates the degree of toxic hazards in those sites.

It appears that little, if any weighing was done to give preference to those criteria which suggest risks to health and the environment away from the site. For example, the same number of points was allotted for open, uncovered dumps (those that do not meet requirements for operation) as for dumps that are within 1000 feet of a well. Certainly the implications of these two conditions are not comparable; yet it appears that no consideration was given to this in the final tally.

Also, the point system masks the significance of the problem by the values assigned. A dumpsite located within 1000 feet of a well was allotted 15 points; a site 1500 feet from a well was allotted 5 points. In a system where one point makes the difference between a Priority I and a Priority II site, such as a minor criteria change means a great deal in terms of attention given to that site. In fact, there could be no justification for such a differentiation in point allocation except on a site specific basis where information on the direction of groundwater flow and surface run-off indicated that magnitude of risk reduction. This obviously was not carried out in the survey.

While these are specific, and probably not the most glaring examples of weaknesses in the survey, they illustrate the point I would like to make. How many of these sites, categorized as Priority II and currently being ignored, are posing immediate threats to health and the environment, either through groundwater, surface waters or other pathways? How many of the Priority I sites other than Howe's Lake and French Village Road, are posing a much greater hazard that we now believe?

At present, there is no indication that the Department of Municipal Affairs and Environment has any intention of initiating any remedial action in either the Priority I or Priority II categories. Nor have they indicated that they will follow up on the recommendation in the survey that the same assessment be done on the active sites in this province, since, according to survey authors, "they have more potential for impacting on the environment". This is unacceptable.

The Conservation Council would like to make the following recommendations for remedial action in those dumpsites, both active and closed, which pose a potential risk to health and environment:

Remediation Recommendations:

1. The provincial government immediately undertake a survey of active dumpsites to determine the presence of hazardous wastes.

2. The Department of Municipal Affairs and Environment adopt a screening technique to assess the types of wastes present in those active and abandoned dumps through testing of groundwater and surface run-off. This could involve screening for the Environmental Protection Agency's 99 priority pollutants commonly found in water bodies.

3. First priority for testing should be given to those sites which are in close proximity to drinking water supplies, either from surface water, or from wells supplied by aquifers in the direction of groundwater flow from the dump.

4. Second priority for testing should be given to those dumps which are known to have been used by industry.

5. On the basis of screening results, hydrogeological surveys to determine chemical plumes in groundwater would be done, and efforts would be made to identify contamination plumes from surface run-off should be done.

6. On the basis of results of #5, remedial action should be taken if any of the following conditions exist:

   a) any source of potable water is threatened;

   b) there are other potential exposure routes due to present or possible future activities on or uses for the site (development or reclamation of land);

   c) there are other potential routes of exposure to humans or damage to the environment from contamination of off-site surface waters (swimming, farm uses, etc.).

7. If the hazard posed by the site is manageable, containment measures would be employed at that site, with provisions for regular and ongoing monitoring.

8. If the exposure to the hazards are not able to be controlled, the contaminants are contaminated materials must be excavated.

9. The Department of Municipal Affairs and Environment should institute a procedure of routine testing or rural wells which are in the vicinity of hazardous dumps to identify the presence of contaminants.

10. Financing of these procedures would be subsidized by the implementation of a levy on users of any waste facility per tonne of waste. A remediation fund would be established with such a levy, and would be allotted on a priority basis.

Very briefly I want to make two more recommendation. The first one has to do with compensation for damages and I would use two examples to illustrate the problems. First of all, during the PCB spill on the highway through northern Ontario we have the situation where a family was in direct exposure to PCB's and no speedy format or procedure was available for compensating for damages. The second example would be the Town of Fairvale where we have a situation of indirect health damage or potential damage through negligent storage and disposal or a hazardous chemical. In that case there was no provision for replacement of water supplies for that town.

In each case, victims need access to speedy compensation, either in terms of monetary payments or in the immediate replacement of water supplies and I would like, the Conservation Council would like to recommend legislation which provides for such compensation either from government funds or funds provided by a responsible party. Once the victims have been compensated procedures then could begin to determine responsibility and then costs would ultimately be borne by the polluter, where such responsibility can be determined. In cases where in-direct damage occurs and responsibility cannot be determined, a fund provided by a levy on waste producing manufacturing and service industries would be available to provide compensation.

The final recommendation that I would like to make is regarding liability in transportation system. The Conservation Council feels that legislation is needed which places absolute liability on the owner and/or transporter of hazardous goods for any damages done or clean-up needed due to an accidental spill or exposure of a party or the environment due to negligence on essentially on the highways. We feel that unless such liability is put into place, then there really is no incentive to reduce the number of accidents that happen with hazardous chemicals. The Transportation of Dangerous Goods Act provides an important system for tracking the movement of dangerous goods and it applies standards which

would allow for more expedient action in the event of an emergency but it does not address the need for vigilance on the part of the transporter and the owners of hazardous goods being transported. So, some sort of liability legislation which would provide that incentive to be vigilant.

I will provide the panel with full copies of my remarks after the meeting.

LAPIERRE:

Thank you Janice. I think we'll forego questions because we have such a lengthy presentation. But you'll be around maybe at the break and I have a few questions I'd like to ask of you.

I would like to proceed with one more brief before we take a short health break. I would ask the Voice of Women, I don't know who the presenter is, she might identify herself.

DYER:

I'm Lucy Dyer and I'm speaking on behalf of the Voice of Women. First off, we are very pleased to have this opportunity tonight to make a presentation to you on our concerns about the various threats to the health and safety of the people in our area.

The plans for the management of hazardous waste and the disposal of controlled wastes which were recently released by the Department of Municipal Affairs and Environment do appear to be a step in the right direction. We would strongly urge that the government make enough funds available to carry out these proposals for a comprehensive waste management strategy including controlled wastes as soon as possible. In particular, efforts to reduce the amounts involved by trying to maximize recycling should receive a very high priority.

It appears that one of the main problems involved in planning for the disposal of dangerous waste is deciding what waste should be included and which should be excluded. On this aspect there seem to be major differences of opinion between Environment Canada and New Brunswick officials. In most cases, it is the New Brunswick officials who have generated estimates which appeared to minimize the extent of the problem. For example, in 1981, the federal Environmental Protection Service estimated that the Maritime provinces generated between 10,000-15,000 metric tonnes of hazardous wastes per year which could not be disposed of by

industry. They felt that this was enough to justify the construction of a proper disposal site in the isthmus connecting New Brunswick and Nova Scotia. They estimated that New Brunswick alone produced 54,000 metric tonnes of waste requiring some sort of special treatment.

In 1982, a report by Environment New Brunswick whittled this down to 1,151 tonnes by excluding such obvious generators as the pulp and paper industry, the forestry sector, chlor-alkali plants, and they estimated the dry cleaning solvent waste at zero tonnes. They did produce another inventory in 1985 which did correct some of these omission but there is still a very wide discrepancy between provincial and federal estimates of the quantities involved. If mistakes are going to be made in the classification of substances, they should err on the side of safety and we recommend that the classification of hazardous wastes should be as broad as possible, rather than being restrictive.

One of the hazardous wastes that is not addressed or included in any of the inventories is the problem of permanent storage of the radio-active waste from Point Lepreau nuclear generating station. By no stretch of the imagination can these be considered non-hazardous. And it appears that the New Brunswick Electric Power Commission is still interested in doubling its protection of these wastes by building a second reactor. As long as there is no satisfactory means of treating or even storing these substances for the required 250,000 years or there about, production should be reduced rather than increased. No industry should be allowed to produce chemicals which cannot be safely disposed of by any means know to man.

Even if satisfactory methods of dealing with all currently produced wastes are installed, there will still remain some very real problems in this Province arising from the improper disposal of hazardous substances in the past. The Province is dotted with abandoned gasoline storage tanks, most of which still contain residues of gasoline. These should be located and pumped out before they develop leaks and contaminate groundwater. Many of the old dump sites around the Province are lost. Efforts should be continued to locate and evaluate all of these including those within Base Gagetown. It appears from recent questions in the Legislative Assembly that no one, including Environment Canada, of the New Brunswick Department of Municipal Affairs and Environment or the Armed Forces themselves know what hazardous wastes have been dumped in these sites, or even where they are.

Since groundwater pollution originating in the base could well flow out of the base to cause problems in nearby communities as herbicide sprays have done in the past, the base should be included in studies of hazardous wastes and any regulations for transport and disposal of these wastes should be enforced there as well as in the rest of the Province.

The lack of knowledge of the content and sites of old dumps on the base and elsewhere highlights the needs for legislation guaranteeing a right to know what is being dumped by industry and by the Armed Forces. This should include a right to know what is being transported across the Province and when.

If the most hazardous products are going to be trucked to Quebec or Ontario for incineration or for other treatment, there will be an increased risk of spills for all of the communities along the route. For this reason it might well be preferable to study serious the option of minimizing transportation and constructing proper disposal facilities within the Maritime provinces. Even with local disposal facilities, there would still remain some hazardous wastes such as the radioactive wastes from the Moncton nuclear fuel fabricating plant which will continue to be shipped to sites such as Chalk River in Ontario.

There is a need for New Brunswick to adopt legislation regulating the transport of dangerous and hazardous wastes. This in itself will not prevent accidents. When an accident does happen, fire and police departments need to know, in advance, what is being transported and how it should be treated. This should be provided by legislation so we strongly recommend that legislation should be enacted regulating the transportation of dangerous substances which cannot be disposed locally or regionally, including the requirement of advance information to fire and police departments on what is being transported, when it is going to be transported and how it should be treated in case of an accident.

That really, I guess I've perhaps overdone the briefness on this one, but we do appreciate the opportunity of letting our concerns be known and I would like to give you a summary of our recommendations.

LAPIERRE:

Thank you very much. I wonder if you could answer just one question. I wonder what are your comments regarding the controlled waste sites. As you have read in the documentation, there are

proposed controlled waste sites, anywhere from three to six in the Province. As a citizen of New Brunswick, how would you react if one of those sites were to be located close to your residence because it was the most suitable place?

DYER:

One of the requirements for the location of one of these, as I understand it, is that is going to be well removed with a very wide buffer zone from any site. So hopefully it would not be too close to any of these. I think that acceptability of it would depend to some extent on what is put in it. There are some wastes which I think should be incinerated and should not be disposed of by landfill. There are others in which is these probably a reasonable method of disposal as long as the landfill is operated properly. While there are some landfills in the Province which are properly run, there are as you are probably well aware a good many which in the past have not been. So it would depend to a large extent on how well it's constructed, how well it's maintained, and how it is considered. But, as long as the wastes are things which will have a reasonably short half life, will break down to some extent, then this should be an acceptable method of dealing with some of them but certainly not with all.

LAPIERRE:

Are there any questions? Thanks a lot Miss Dyer. At the present time we have just about completed half of our presenters so I would suggest that we might take a 15 minute health break and then come back for the following meeting. We're far removed from the hall so I try to ask you to be faithful to 15 minutes...

.....

O.K., Before Mr. Doiron comes forth, I would like first of all to express my apologies. Apparently when I mentioned the Lutes-Estey report, I mentioned Mr. Estey. I meant to call upon Mr. Lutes whom I knew was here to try to explain the discrepancies between the federal figures and provincial figures. If you could just quickly summarize, Mr. Lutes just for the record.

LUTES:

OK, I guess there is a, as some presenters have indicated, a very significant difference. We are looking at something in the order of 2,000 tonnes a year and the federal government is in the order of 40,000-50,000 tonnes a year.

I guess basically the problem is in definition. There is an all-encompassing definition that most jurisdictions have agreed to, in principal. The problem that we have is that definition tends to include all types of wastes, or perhaps it goes a little further than more jurisdictions would like to go with it. What we're finding, and we are plugged into the national scene, we are members of federal/provincial committees and we're dealing with other provinces..... and I think that problem that we're all wrestling with now is that perhaps the definition is somewhat to all-encompassing. What we're seeing is a number of the jurisdictions are putting certain exclusions in their regulations, the main one being certain types of wastes being classified as industrial wastes.

I think that it gets down to the main difference in the inventories. A lot of the waste included in the federal inventory is classified by the Province as industrial waste. To take an example, I believe there's about 15,000-20,000 tonnes of high and low Ph waste that is discharged by power generation plants, some by the pulp and paper industry. That really is something we feel belongs in the industrial waste category.

As a matter of fact, if you were to include the pulp and paper wastes, all of the pulp and paper waste in the Province, you would be into the many millions of tonnes a year. A typical example is a typical pulp and paper mill in the Province would discharge something in the order of 150,000 tonnes a day of waste, of liquid effluents. And if you look at the corrositivity, the toxicity, and a couple of the other parameters that go into the definition of hazardous waste, I think pulp mill effluents would certainly qualify.....and, we just don't think it's reasonable to lump all of those "industrial" wastes into the hazardous waste category.

The other thing had to do with statistics. Our survey was done on two occasions and entailed interviews and questionnaires with approximately 400 companies. The federal survey dealt with about 30 companies. Based on the number of companies that are operating in the Province, we don't feel that that number of 30

is statistically significant. We feel that they should have talked to more people.

We have done it on two occasions. We've talked about 150 the first time, 200 this time. We've actually gone looking for chemicals and there's been no attempt here to cover this thing up. In a number of the sectors we have gone looking for chemicals. The feds, for instance, identified 21 tonnes of pesticides in their survey. We took the extra step of going door to door in Carleton County talking to farmers, looking for waste, trying to ferret out any waste that they might have and essentially in terms of pesticides we just weren't able to find any..... let alone reach a number of 21 tonnes.

So, I think it's a matter of which types of wastes you want to exclude from the hazardous waste category. I think most jurisdictions are doing that now and there's also this statistical significance of how many people you talk to in arriving at your inventory.

There's no question that there's hazardous waste out there that we've missed. There's two or three thousand companies in the Province and you can't talk to them all, and as we find out about these wastes, we're including them in the inventory. I think, on that basis, we feel that our inventory of 2,000 tonnes, and looking at the waste types that we've looked at in the last go around, I think fairly well characterizes the hazardous waste problem in the Province.

LAPIERRE:

OK. We thank you for your answers and if we had more time maybe later on we might have a few more questions. At the present time I'd like to ask the interveners who are remaining on our list to present their briefs. I would now ask Mr. Doiron from the Power Commission to please...I'm sorry for the delay.

DOIRON:

Thank you Mr. Chairman. My name is Chris Doiron. I'm the supervisor of environmental and chemical operations with NB Power and I'd like to read into the record a statement which was earlier submitted to the panel.

The public profile of the hazardous waste issue has greatly increased in recent months, primarily as a result of the media

coverage afforded such incident as the Kenora, Ontario highway spill of PCB's in April of last year. Regulators are responding to the public's concerns by tightening up and expanding upon legislation pertaining to the management of hazardous materials in general and of hazardous waste disposal in particular.

In a provincial context, this is evidenced by the recent implementation of the federal Transportation of Dangerous Goods Act; the development of a hazardous material inventory and; current efforts to develop a comprehensive waste disposal strategy.

Notwithstanding these initiatives however, the not in my back-yard or NIMBY syndrome has become pervasive at both the local and regional levels throughout the Province. This has severely hampered the efforts of industry and government alike to develop effective management programs which are aimed at ensuring that potentially hazardous and yet essential materials are utilized and disposed of in an environmentally acceptable manner. There is no question, therefore, that overcoming the NIMBY syndrome must rank at the top of the regulatory priority list vis a vis gaining public acceptance of future disposal facilities.

With this in mind, NB Power strongly supports the initiative of the Department of Municipal Affairs and Environment which I'll refer to hereafter as the Department to address and resolve the Province's current waste disposal problem. Moreover, we consider the dissemination of information to and the evaluation of feedback from the general public to be a key element of this effort.

The Commission concurs with the Department's application of the term "hazardous" to wastes which represent a significant risk to human health or the environment unless they are handled with special care. We agree that New Brunswick lacks the industrial base to support the development of a high sophisticated facility to handle such material and that our best option in this regard is to utilize facilities in other parts of the country. This has been and will continue to be standard Commission policy for disposal of such materials as PCB's.

However, NB Power's fundamental position is at the long-term success of a provincial disposal strategy hinges upon the definition of the controlled waste category. In short, the Commission feels it is essential that industry have the capability to dispose of relatively inert materials in controlled landfills. It would appear that the general public is not aware of the fact that the vast majority of wastes they perceive to be hazardous actually

fall into the controlled category at least in the utility context. That is to say, while the material in question may not be amenable to co-disposal with domestic garbage, in no way represents a risk to either human health or the environment, if it is properly landfilled.

A few examples specific to NB Power include petroleum sludges which accumulate over a period of years in our fuel oil storage tanks; asbestos insulation which is removed from power plant turbines, boilers, etc. for maintenance purposes; and oil contaminated soil generated as a result of occasional spills in our plant tank farms. NB Power makes every reasonable effort to reclaim and reuse this type of waste. Witness the development of the waste oil firing systems at the Courtney Bay and Grand Lake generating stations.

Regardless of reclamation efforts, however, there always is and always will be a residual material to be dealt with. The Commission cannot accept the premise that such material, most of which I'm speaking here of oil waste material which has a consistency of hardened asphalt, must be shipped out of Province at a cost of $100-200 per 45 gallon drum simply because there is no acceptable alternative in New Brunswick. This requirement imposes an unnecessary financial burden on NB Power and in the end on our customers. The responsible management of hazardous materials is a complex issue and one that NB Power has been involved in for several years. Our experience has been that the final resolution of specific problem areas can only be accomplished through a process of on-going dialogue among representatives of industry, government and the general public, and there is no doubt that the Department must assume the lead role vis-à-vis the problem at hand. More specifically, the Department must make every effort to ensure that the interests and concerns of both industry and the public are integrated into the responsible regulation of waste disposal activities.

NB Power endorses the current provincial effort to promote more responsible "cradle to grave" management of hazardous materials and in so doing recommends that:

1) Efforts continue at all levels of government to ensure and promote the responsible management of hazardous materials.

2) These governmental efforts be conducted in an integrated manner to prevent jurisdictional overlap and ensure practicable compliance.

3) Potentially affected industries be afforded the opportunity to provide on-going input to the development of the province's final policy vis-à-vis waste disposal.

4) The development and early operation of environmentally and technically sound facilities for the disposal of controlled wastes be made a top priority of the appropriate personnel in the Department of Municipal Affairs and the Environment.....

(tape inaudible)..... and would be much much less than they are at present.

LAPIERRE:

Thanks a lot Mr. Doiron. I have a question to Mr. Lutes, I think, at this time regarding these controlled wastes sites. Mr. Doiron mentioned that most of the products that would be sent..... that they (N.B. Power) have to send to these areas would have a consistency of hot asphalt.

What controls would be imposed upon these controlled waste sites that would assure people that other, more toxic wastes are not slipped in on the side? How would we be assured that nothing .....(tape inaudible)

LUTES:

Well, we haven't fixed on the concept as yet but ultimately, I guess, what we're probably looking at is a system whereby, on a user-pay basis, the system would be operated directly by the Department of Municipal Affairs and Environment. We would control access to this site. The site would be secured. Anyone wanting to use the site, and we're talking here of relatively infrequent usage, but anyone wanting to use the site would first have to contact us. We would accompany that generator of waste and the transporter onto the site and be there during the full time of the disposal. The type of waste that Mr. Doiron is referring to is the type of waste that we think is acceptable in this type of facility.....It's not for the discharge of oily liquids and whatnot where control would be somewhat difficult but wastes that have been complexed by soil, by cleaned-up material.

We've indicated previously that the soil at the site itself would have to be, and we've been looking throughout the Province for these ideal soil conditions, would have to be of the type

that would provide proper attenuation and control of any migration of contaminants. There would also be monitoring wells, control wells, to see that contaminants are, in fact, not leaving the site. But, the intent is certainly not to have anyone and everyone free access to this site. It would be very strictly controlled and we're looking at something in the order of maybe a half a dozen to a dozen visits to each site per year.

LAPIERRE:

So there would be monitoring by Environment personnel each time someone goes to the dumpsite?

LUTES:

That's right and we would be there during the entire dumping operation.

LAPIERRE:

OK. Thank you.

LANGMAID:

Bob? Would there be somebody on duty there 24 hours a day all year round?

LUTES:

No. We're talking about a relatively infrequent usage and it really would not be cost effective to have someone there all the time. The possibility always exists, you know, that people in the vicinity will perceive this as a some form of garbage dump and may take their wastes to that site and I guess we're going to have to deal with that if it comes up.

LANGMAID:

It will be fenced though?

LUTES:

We're looking at fencing and proper gating. We would have access to that gate. The disposal procedure would be complete in a matter of a day or two. In other words, the material would be dumped, it would be covered over and secured and everyone essentially

leaves the site and it's locked up until the next visit.

LAPIERRE:

Thanks a lot Mr. Lutes. I would now call upon Mr. Cluney from the Canadian Manufactures Association.

CLUNEY:

Thank you Mr. Chairman. My comments tonight may be shorter than even I expected this time if my voice gives out because of the epidemic you might say of the flu around Moncton and coming from Moncton you'll appreciate that I may or may not have difficulty. So please bear with me.

First of all, I'd like to say that CMA New Brunswick appreciates the opportunity the be here with you tonight. We commend the Provincial Government for instigating, by means of the New Brunswick Environmental Council, the current consultation program on the subject of Hazardous Waste Disposal and other aspects of Waste Management. The opportunity for input by this manufacturers' association, and other persons and groups like us who have a major stake in the future of our Province, is a constructive and essential means to developing a workable Provincial management plan.

We consider it appropriate, at the outset of our presentation, to reiterate CMA's Code of Principals for Environmental Quality, one that has long been advocated by this Association as a responsible and balanced approach to total environmental management to ensure a coordinated effort by all concerned. If I may Mr. Chairman, I'd like to quickly run through that code of principles to let you see where the CMA is coming from.

1. The Association recognizes that its members have a community obligation to protect the environment.

2. The Association and its members, in cooperation with other Associations, are prepared to assist government at all levels including its agencies in the formulation of effective legislation and regulatory standards and objectives.

3. The Association believes that control of environmental quality is best regulated on a regional basis.

4. The following point are considered as basic:

a) Environmental quality criteria should accurately reflect current scientific knowledge and consensus.

b) Necessary regulations and quality standards should be established only after careful determination and evaluation of the facts, and in the light of control methods that are feasible.

c) Provision must be made for appeal and judicial review of all administrative decisions.

d) Much additional coordinated research by industry and government is needed to develop improved techniques and equipment for (i) enhancing environmental quality, and (ii) determining the effects of different concentrations of various contaminants.

e) The economic impact of corrective efforts must be fully realized by all concerned. Anticipated benefits should be weighed against the direct and indirect costs, which can be great, and which ultimately will be borne by the public.

We commend these Principles as deserving of your consideration as you proceed with your deliberations and as you consider attention to the matter at hand.

As stated in the "Hazardous Waste in New Brunswick 1985 Status Report", the volume of hazardous waste material produced in New Brunswick is low in relation to more industrialized parts of Canada. This is because our manufacturing base to date has been primarily related to resource extraction or processing. But some companies employ a variety of products in their routine operations and these, together with consumer products manufactured outside the Province and used here can be a source of waste material.

So, albeit a comparatively minor level of problem in our Province, however important, we recognize the need for addressing a growing awareness of waste management problems as communicated for the most part as existing beyond our borders.

Manufacturing is important to New Brunswickers and Canadians indeed, essentially supplying jobs we need and products we want. But you have to take the bad with the good and at times a by-product of manufacturing will be hazardous industrial waste.

But waste can be reduced, recycled and often (is) recovered at source. One (outside New Brunswick) study estimates that only 10 per cent of hazardous or special wastes are reused or recycled and emphasizes the need for more to be one in this area. We suspect the 10 per cent figure is low, but agree that more waste should be recycled and reused than at present. The limitations are the economics of disposal.

In CMA's view, the solution will result from finding a site for a safe treatment and disposal facility. We acknowledge that this will lead to increased disposal costs. This CMA accepts. We believe, with some limitations, that treatment and disposal at the site should run on a break-even basis and not provide unwarranted subsidies.

Increased disposal costs resulting from use of the site will be the most efficient way to encourage recycling and reuse. The first approach should be to establish the site, set disposal costs and let the pricing mechanism of the market place promote recycling.

We also must fact the fact that recycling will never be anywhere near a complete solution. A fact of industrial life is the need for waste treatment and disposal. Clearly we do not have all the required facilities to meet today's needs, much less the needs of an expanding manufacturing sector that Canadians are counting on to provide jobs for tomorrow. All agree that finding a site for safe disposal facility is necessary and CMA thinks the approach of involving the public throughout the decision making process will help solve the key problems - locating a site and obtaining approvals.

Past attempts to establish sites have failed in the face of local opposition, not only in New Brunswick, but elsewhere in Canada and the United States. Why?

What has come to be know as the "not in by back-yard syndrome" always arises. This has been a natural response from concerned local citizens. Their reaction has been fueled by their lack of understanding as to how treatment, disposal, and security inter-relate. The fresh approach, based on obtaining public confidence,

is a sound principle. Actively encouraging groups with diverse interests to participate in the process of choosing appropriate technologies and candidate sites is the right approach. Consultation meetings such as this are the way to go.

Hopefully, through this involvement, public interest groups will come to see the eventual decisions on a site and appropriate technologies as a solution to a problem we all share. Experience has certainly shown the need for the public to accept that the solutions proposed are the correct ones.

Despite public involvement in the process, the "not in my back-yard syndrome" is still likely to arise and lead to local opposition when an actual site is chosen. But at least that opposition should not be fueled by a lack of public confidence in an unknown and misunderstood site selection process.

Success will depend on groups involved in the site selection process looking for practical solutions to some difficult questions.

Thinking ahead to when we have a site, a major consideration will be what to charge for disposal. Finding an answer here will require an approach that seeks common ground and abandons rhetoric.

There are arguments the site should be self-financing, then consumers will pay the costs of disposal associated with goods they use. Moreover, with higher disposal costs, market forces will work to encourage recycling, reuse and reduction of wastes at source. Generally CMA favors this approach, as we believe in the market place. But we also recognize limitations that require exceptions and a need for subsidies.

A role for subsidized disposal costs is probably justified if the site is to be as safe as we all really want it to be. The rationale that consumers of goods should pay associated disposal costs rests on free market principles of optimizing costs and benefits to society. Likely, to get public acceptance of waste disposal facilities, we will need to design facilities that will be safer than would be dictated purely by balancing costs, technology and benefits. Public attitudes require this extra degree of safety. CMA believes the public purse should contribute to this cost.

Subsidies may also be needed for particularly difficult to treat wastes, but should not be such so as to discourage recycling, recovery and reduction of wastes at source when these are feasible.

Some may even argue for substantial subsidies as a way to encourage use of proper disposal. CMA does not take this position of generally favoring subsidies. Manufacturers do not feel they need to be enticed to meet their waste management responsibilities. They accept this as a cost of doing business.

But, in solving the pricing puzzle for waste disposal, we should not dismiss out of hand, either, total cost recovery or substantial subsidies. The eventual pricing formula will probably fall somewhere in between.

Balancing arguments for subsidies and for full cost recovery will be easier if the site is located so as to minimize unnecessary costs where practical. There is general acceptance that public support for the site will require using safe technology that has proven successful, without much regard to cost. But when it comes to locating the site, it makes sense to minimize transportation costs and to use whatever land is most suitable.

It must be recognized the use of prime land may be necessary. This is particularly so, if economic considerations favor a centralized facility. Such a facility may require a site that is too large to be accommodated other than on prime land.

Chapter VII of CMA's Economic Discussion Paper "A Future That Works" is entitled TALKING TOGETHER. It's introduction states that:

> "We will work together better if we talk together first. Success requires a will to consult, to discuss and exchange information, and to develop common objectives. While there are some common denominators to successful consultation, there is no blueprint. The process must be tailored to the specifics of the parties and the issues.

But, there comes a time when action must be taken, when TALKING TOGETHER must evolve into WORKING TOGETHER to meet the challenge of getting on with the job. Hopefully, when that time arrives, there will be satisfaction that the <u>best possible solution</u> has been found.

It is with all of this in mind that CMA, on behalf of its Membership, adopted its Code of Principles for Environmental Quality, its commitment to assist government in the formulation of good direction for the common good of all New Brunswickers and all Canadians. Thank you Mr. Chairman.

LAPIERRE:

Thank you very much Mr. Cluney. I wonder if you would care to answer a question or so. My question regards the liability. What are your views concerning liability of hazardous wastes? Should the company that produces either hazardous or toxic wastes be liable for the pollution if it comes from their facilities?

CLUNEY:

I think Mr. Chairman that the problem of liability is one that and particularly these days is being addressed is some considerable concern with the liability insurance problems that we all face in all segments of our community. As I mentioned in our submission, manufacturers want to, as far as possible, accept and take on the responsibilities that they feel they have in the operations that they are responsible for. The liability question as we all know is something that, around the world, has caused some considerable difficulty and certainly the manufacturer will do his utmost to insure that he has the responsibility that he is required to have and that he will have the insurance and the coverage that is affordable.

When it comes to going beyond the affordable, when it comes to going beyond the expected, I think there may come a time when society has to, as I mentioned the theme of my presentation, work together with industry in talking together, working together to arrive at a proper solution for the good of all concerned.

LAPIERRE:

If I can gather from your answer, liability would be a problem of society, it would include industry and all members of society?

CLUNEY:

I think it's difficult to generalize, Mr. Chairman, in this area. When you look at one extreme of a situation such as might develop in this area, versus another and on down the line in terms of seriousness of the situation. I think the situation is one that would have to be dealt with on the individual merits of the individual situation. One that could, in the extreme, result possibly in society being a part, essentially being part of the solution.

LAPIERRE:

Thank you.

The next brief will be presented by New Brunswick Telephone and I think Mr. Jollymore will....

JOLLYMORE:

Thank you Mr. Chairman. I took the term brief rather literally.

The nature of hazardous waste handling and control is an issue currently causing great public concern, not only in New Brunswick but also in the rest of Canada and other countries. We are particularly heartened by the efforts of the Department of Municipal Affairs and Environment in establishing an approach and planning process for the control and eventual safe disposal of hazardous wastes in New Brunswick. We support the proposed approach and believe that the recognition that there are at least three categories of wastes is an important step.

In reference to those wastes which fall into the "hazardous" category, we fully agree with the proposal that they be properly collected, stored and transported to an appropriate disposal center. We believe that we should challenge the technological resources within the Province to develop effective disposal systems, rather than just automatically assuming that we should, or can, depend on others (out of the Province) to handle our problems.

In regard to the proposals for the disposal of controlled wastes, we are not in a position to comment on the site selection criteria. We would strongly urge that a bias be exercised towards safety, given the extended time frame needed to assess resultant environmental impacts.

We believe that the main issue resulting from the proposals is that of implementation. Implementation will, involve, such things as funding and maintenance of such sites. If funding should utilize the user-pay principle, then we think we are going to be faced with a major educational and control challenge to encourage both individuals and institutions to properly - presumably at a cost to them - dispose of waste materials.

To illustrate, the point that I'm trying to make. Let's use batteries as an example, lead acid batteries I was thinking of particularly, the distribution channels of which are widespread

indeed. We think it would be a momentous task to ensure that not only do people understand the necessity for safe disposal but they in fact follow through.

It occurred to me after I'd written down this example that it's rather interesting if you think about the car batteries, because when they've ceased to be useful to users as a car battery they do sill have some value to somebody and so from all of these places spread all over the, you know in every car, those batteries find their way back into a very limited number of locations, i.e. the junk dealers.

So that therein may lie part of the solution to this problem of trying to ensure that we can collect these things that we want to get into the controlled waste site, i.e. someone is going to have to see a value in channelling them into those centres. I must say I'm deviating from my written report here but I'm a little bit confused about how we would expect an awful lot of the things in the controlled waste category, that, as I understand them, can be in everybody's household, to get channeled back into a controlled waste site of which there's only going to be a few in the Province. They're going to be very difficult to get to and only accessed 12 times a year. So, there must be some intermediate process where things get collected and stored, if that system is going to work.....unless it's going to be used just for industrial waste in which case I would think it would be a more manageable kind of problem.

Another area of concern should be that of the proper collection, storage and transportation of these materials to the disposal sites. Precautions and procedures for collection and transportation must again, in our view, err in the direction of safety.

Within NBTel, we have a very limited number and volume of materials which would fall into either the hazardous or controlled waste categories. The <u>direct</u> disposal of such materials is an issue with which we have not been faced up to now. But, we recognize it's one we are going to have to deal with in the near future because we have found that we do have, for example, some capacitors in some of our parts supplies that contain PCB's and we're going to be interested in eliminating those from our plant, so we are going to have to be faced with that issue. And are committed to acting as responsible citizens in doing so.

The problem of disposal of wastes in New Brunswick affects us all. We therefore, support the direction being taken on this

issue and believe that effective action will help avoid serious future environmental problems.

Thank you, Mr. Chairman.

LAPIERRE:

Thank you very much Mr. Jollymore. We then pass on to the following brief which is presented by the New Brunswick Fire Chiefs Association, the Executive, I understand.

POWELL:

Thank you Mr. Chairman.

LAPIERRE:

Could you please identify yourself.

POWELL:

My name is Tom Powell. I'm the Fire Chief of the City of Fredericton and I'm here representing the New Brunswick Association of Fire Chiefs.

The NBAFC wish to present to the Council the views of the NB Fire Service.

The NBAFC is a non profit organization with membership from across the province both full time and volunteer Fire Department are members of the Association. There are 154 Fire Departments with over 4,000 firefighters in the Province. The Association is geographically represented by a member from each District Firefighters Association.

We have reviewed the documentation provided with regard to the Hazardous Waste 1985 Status Report. We agree with the concept of handling disposal on the site the hazardous waste is created. To remove the materials after they have been neutralized is by far the optimum solution, however, this method is not always possible.

The report discusses the Quebec High Temperature incinerator for the destruction of PCB's and implies the Atlantic provinces may transport their PCB's and other hazardous waste to the incinerator. However, the method of transportation is not discussed.

It is reasonable to assume the method of transportation will be rail or road, either of which would present additional risks we believe should not be taken. Transporting hazardous wastes through NB from all over the Atlantic region through the towns and villages alongside our transportation systems will increase the risk of potentially disastrous incidents.

We heard tonight discussions and arguments relative to the amount of waste that is being transported from something like 54,000 metric tonnes to 2,000 metric tonnes. The High Temperature incinerator is obviously the desired method of disposing of PCB's and other hazardous wastes. The construction of such a facility for New Brunswick would seem to be the most logical method of dealing with our hazardous wastes problem. The alternative of collecting, storing and transporting hazardous products would increase the risk to New Brunswick and the environment.

We in the Fire Service respond to incidents that occur usually due to poor risk management, failure to recognize the risk of a fire or accident results inevitably in our services being required. We urge you not to ignore the additional risks the Quebec option is providing for the Atlantic Provinces and in particular for NB. We urge you to consider the construction of a high temperature incinerator for the Maritimes.

The cost of constructing an incinerator is obviously a concern of the Government, and of us all. However, the long term costs of collecting, storing, and transporting to other provinces should be considered in comparison to a one time construction costs of a high temperature incinerator. We believe when the incident risk factor is included and the potential costs of clean up after incidents is factored in to the mathematics, the cost of construction will look favorable we are sure. The option of User Pay Systems should be considered by the Provincial Government, particularly as it relates to large volumes. We heard the New Brunswick Power Commission represented here tonight talk about their wish to reduce their costs and we believe this cost will be reduced with the construction of such a facility.

PCB's have been discussed at length tonight by various people. It would appear that the high profile given to PCB's may not be appropriate. There are differing opinions as to the danger or lack of danger expressed by various groups on the subject of PCB's. We in the Fire Service do consider that there are over 50,000 other chemicals readily available in the market place, some of which are know as immediate life threatening substances. A recent

report from the Dalhousie area indicated that PCB's have been successfully neutralized by using a chemical to react with PCB's resulting in a salt sludge residue. The report went on to indicate that the cost of neutralizing one transformer contents was approximately $10,000.

Not all of the problems will be answered by one incinerator. The amount of wastes produced in NB daily requires good waste management. The present methods being used leave a lot to be desired. We ask you to consider the risk to firefighters who deal with the fires that result from the present landfill practices, every kind of obnoxious waste being borne in the smoke. The large amounts of flammable materials usually found in landfills contribute towards the fire problem of the sites. We do not have any magic solutions to this problem, the consideration of how the problems have been dealt with by other more densely populated countries may be useful.

On the subject of training for handling of hazardous material incidents, the Fire Service is concerned with apparent lack of priority given to training by the Provincial government. Training that has been done to date has been generated inside the Fire Service by the Training Officers of the various Departments. It appears the only other options open to the Fire Services in New Brunswick are the courses put on by the Federal Government in Arnprior, Ontario. We urge the Provincial government to consider what avenues may be taken to provide for Hazardous Material Incident Management Courses for the New Brunswick Fire Service.

In addition, the need for Hazardous Material Equipment has increased directly with the number of incidents related to dangerous goods. The Fire Service has approached this problem in several ways, some Cities and Towns have chemical suite protection, others do not. Chemical suits are not the total answer as different chemicals may require alternative materials in the suit and decontamination becomes a problem when insufficient numbers of suits are available. It has been suggested that certain Fire Departments be designated as Hazardous Material Departments and receive funding for Training & Equipment. The NBAFC concurs with this proposal. The Fire Services is in need of Training and equipment. You are urged to consider this concern upon completion of your report.

The NBAFC thanks the Council for providing this opportunity for the Fire Service to voice its concern particularly as it related to the disposal of Hazardous Waste. We are concerned

with the implied option of transporting volumes of PCB's and other Hazardous Waste through our Province from all over the Atlantic Region to the Quebec facility. We urge you to seriously consider the construction of a disposal facility for the Maritimes.

Thank you.

LAPIERRE:

Thank you very much Mr. Powell. I wonder if you would care to answer a question or two?

How many fire units in New Brunswick would you consider adequately trained to take care of a chemical spill or fire or whatever it may be.

POWELL:

Well, Mr. Chairman, it's not a question I can answer directly not being involved in the training of all the individual departments. I can speak perhaps on behalf of my own department and tell you that we have trained inside of the department in the use of chemical suits and the approach to chemical incidents and the senior officers of my own department have attended the Arnprior course, all of them.

Now, that's a full-time paid fire department. When you relate that to a volunteer fire department where their main job is in some other industry and then suddenly their faced with a chemical incident where they have never had any training or instruction from anybody on how to deal with it and do not have any equipment to deal with it, then you're looking at two different aspects.

LAPIERRE:

Yes, but would you say that all the paid fire departments in New Brunswick have undergone the same training and education?

POWELL:

Well, Mr. Chairman, some have and some may have not. I know, for example, that Bathurst has done some training and do have chemical suits. I believe that Saint John has done some training and do have chemical suits. I know that Fredericton does. I cannot speak for all the other cities.

LAPIERRE:

OK. Thank you. There's another question sir.

LANGMAID:

Do you think that all the professional fire departments should be so equipped and trained? Or would that be enough to handle the situation?

POWELL:

Well, when you consider the problem, the problem is that an incident may occur in any part of this Province and probably around our transportation system of the main highway or the railway. And this can occur in any location and the only alternative that people have to having some assistance immediately is the fire service. The closest fire department will be called to the scene. And eventually, depending on the distance, the department that has equipment will be called to the scene. And it may not be necessarily another fire department, maybe the Department of the Environment or some other group. It may even be the manufacturer. There are some emergency teams available through the manufacturing group. So, really to say how many should be equipped and who should be equipped is difficult. But I think you should be looking, at least, at the major cities and perhaps even the six major population areas.

LANGMAID:

Thank you.

LAPIERRE:

Thanks a lot Mr. Powell. The next speaker is Professor Gary Whiteford.

WHITEFORD:

First of all, I like to thank the Committee for allowing me this opportunity to make what I consider a brief presentation here tonight. My name is Gary Whiteford and I teach geography at UNB. I have taught there since 1974 and I have interest, both academic and personal, in environmental issues, but I do not represent any organized or special interest group.

My brief comments are in no way meant to be technical. I am simply proposing a kind of umbrella concept which I hope this Committee will find useful for later discussion and like other presenters I do commend the Committee in its efforts to seek public input. I believe your work to be important and I sincerely hope that something concrete and tangible will result in your fact-finding mission. Such environmental fact-finding committees are a necessary part of today's rapidly changing world, even if at times input from the general public seems difficult in coming. If allowed, I would like to make my remarks relevant to the broader concepts within which hazardous wastes are a part and certainly a very important and critical part.

First, however, I think it is necessary to note that the New Brunswick government at the moment has a dual cabinet position of Environment and Municipal Affairs. I find this unacceptable. Because of this, I remain somewhat skeptical and puzzled that this particular provincial government is truly interested in environmental issues and specifically hazardous wastes. If so, why is there such a delay in appointing a full-time Environment Minister when such a person is urgently required. From my point of view it sends a clear message to the general public in effect saying that environmental issues are really not that important. We need a full-time Environment Minister now and not at some indeterminate point in time. May I challenge this Committee to show where such ministries are combined and if so what this says about the Province's priorities.

But, my basic comment to this Committee concerns the entire process on how this Province reacts to a hazardous waste problem. In some cases, indeed in a good many cases, the reaction is more immediate than long range. So often individual people in individual communities are left to fend for themselves against the environmental problem of the day and this takes time, energy and money. In some cases, politics and the economics overrun the environmental concerns and the people lose. In some cases this loss might be the local drinking water. However, in other cases the community overcomes the environmental problem and in the case of Renous, for example, the PCB's are dumped in somebody else's backyard. Really a short-term solution for a long-range problem.

What I believe is necessary is the creation of regional environmental committees based on regional watersheds. In other words, use the various river watersheds in the Province to delineate the jurisdiction of territory for these various committees. Such committees will be permanent and long-standing, comprised of

people who have lived in the region for many years. They are not going from one election to another, they will certainly be concerned and they will have long-term interests rather than short-term plans. I am not sure of the membership character but certainly key people like: the local planner; the local fire chief; the local EMO person; the local medical person; the local business/ manufacturing person; an educator; a retired geologist might be part of the composition. And I'm not sure of the number for such a committee. But surely the more diverse the committee, the more the interest of the environment will be understood and protected.

Such committees will sensitize their various regions as to what is happening in their particular watershed environment, thus short circuiting an environmental crisis. What we are seeing now is the reaction and in some cases very inadequate reaction to a problem. We are really planning by crisis rather than by planned design. We need periodic assessment of the environmental quality and who better to do this job than the qualified people who actually live there and have very personal concerns and feelings for these regions. And if I might digress just a minute and perhaps comment on Chief Powell's concerns. I think here when we start talking about these committees, it seems to me that the local fire person becomes a key personnel to work with this committee so that you can identify three or four key kinds of people who, by the way, are going to be in that region for a fairly long period of time in terms of them being a resident in the region. I think that's a key concept.

How can any of us, for example here tonight, truly empathize with the people of Fairvale who have permanently lost their drinking water. We need personal identification of possible environmental problems before the problem becomes irreversible. Such information could then be compiled and tabulated by Environment New Brunswick. It is obvious that the current state of environmental problems cannot be dealt with by a single government agency. It's becoming all too unmanageable. They need input and what better way than to involve the local residents and professional people who are most affected by the problems. These public forums are certainly a beginning but so often input is provided, tonight, but then forgotten in the bureaucratic shuffle, or because the government changes hands.

We need some local environmental mainstays that can be easily mobilized and have the necessary data to comprehend environmental problems before such problems become so great that the only solution is to close off the area.

Therefore, my simple recommendation is that this Committee use the hazardous waste disposal concern as a springboard to establish these regional environmental committees. Locate the sites, location potential future disposal zones, identify the watershed affected, gather the interested concerned and qualified residents, receive input from Environment New Brunswick and the Conservation Council among other groups and then establish at least some working committees. These newly created committees could then expand their environmental issues and interests beyond hazardous wastes. We desperately need long-term environmental planning for this Province on a comprehensive local regional basis using the watersheds as a working framework. Unfortunately the environmental happenings of the recent years could be a footnote to the problems down the road. Urgent and definite action is required. Environment problems, and hazardous wastes in particular, go beyond a given political party and a given time frame of one election to the next.

I would suggest that this Committee think hard and long in establishing some mechanism whereby environmental planning becomes strongly localized, permanently based and consider worse-case scenarios for that particular region in the long-range planning. We need to re-think the direction in which we are heading because at the moment to me it's simply runs from crisis point to crisis point.

Thank you.

LAPIERRE:

Thank you very much. Professor Whiteford, I wonder if you would care to comment on how these areas could be funded? Would they strictly be volunteer or would there be.....would you see a user-pay concept for funding?

WHITEFORD:

Well I think that's a possibility. My concern here tonight is not so much from the economic point of view as it is from the geographic point of view. What I am suggesting to the Committee is that the watersheds provide the framework in which you can identify a region. You have the region because the water becomes the basis for identifying that region. Now in terms of the cost I don't think I am prepared to answer that at this particular point in time. What I would like to see is the identification of key people within the watersheds and once you get the key people, the key people are going to be there for a fairly long period of

time and they should have a handle on the local problems well before they emerge as a major problem. So from the economic point of view, I simply couldn't give you that information.

KERR:

We have another member of the Environmental Council who is not sitting up here, but who has more experience with watersheds than I think anyone in the audience, this is John Henderson, at the back. Do you have any comments John on the proposal of this gentleman?

HENDERSON:

That's a dirty trick Dave. Yes I do. I think the idea has a lot of merit. It's hard to define what size of watershed to take as a unit right off the top of one's head. Something like the Saint John River basin is too big. Gary being a professional geographer probably has a better idea but I think Don Smith probably has an idea too because he has a small watershed problem that he has let us know about once in a while. I like two things particularly about Professor Whiteford's presentation: 1) the watershed basis for an area and 2) the idea of identifying or getting volunteer participants from within the area to advise and to help to select the method to be used and the site to be used. I think this is perhaps the only way to get rid of the NIMBY syndrome.

LAPIERRE:

Thank you John. I'd like at this time to maybe just take a moment to present Mr. Henderson and Mr. Williams who are in the back of the hall. They are two members who are not on the Panel but are part of the Council. So I'd just like to present them to you. John is here and Mr. Williams is way in the back there.

LANGMAID:

I think you answered by question but the other thing is, what do you mean by a long-term resident?

LAPIERRE:

Professor Whiteford, I wonder if you might take the microphone.

LANGMAID:

Are we talking someone who was born and raised in the area?.. or somebody that's been there for five years and consider themselves an authority,..... which we have in this province.

WHITEFORD:

I think that it's important, that may vary based on the watershed. In other words, you might have in one particular region a certain gentleman who has been there for a good number of years and he becomes a very valuable resource person that maybe actively involved and may not be actively involved. So, it depends on the watershed in terms of what we mean by permanent resident. I think what I meant by that term is somebody that has a commitment to the community. So, if you've got somebody that's in a working position that's been there for a fair length of time or at least has maybe only been there for five years but has a commitment to the community. I think that's the key on this, that you have local people who have a commitment to the community, whether they've been there five years or 15 years. Because what we're going to generate here is a very personal kind of input and it's very easy for somebody in Fredericton to plan for the northern part of the Province when they don't live there. But when you live there, you've got a certain kind of a feeling for the region and this is, I think, very important to identify. So that length of residence could be five years or it could be 15 years.

SMITH:

This thing about the Saint John River basin. How many watersheds did you envisage, first of all, and second of all, how would you split up the Saint John River basin?

WHITEFORD:

Well, I didn't envisage a certain number of watersheds. I think Mr. Henderson's comment is well taken. I think we've got to get watersheds that are manageable so if you take something like the Saint John River basin obviously that's just simply too big.

SMITH:

I'm not arguing with your suggestion. I think it's a good one. I'm just wonder if you can add a little bit more information

to it. How many...did you look at a map and figure out how many there might be? or...

WHITEFORD:

Well, again it depends, you see you might combine two watersheds based on the key personnel that are in the region so there's no sense in giving you a number. I think all I was interested in tonight was to get across the concept and I think that there are people that are probably more eminently qualified than I am to identify these watershed basins. I think Mr. Hendersons's comment should be taken into consideration and that is the size of the watershed. So, to put a number on it at this point in time, from my point of view anyway it's irrelevant. What I want is the concept. As I say there are people in Water Resources Branch that have a much better handle on this than I do.

LANGMAID:

Wouldn't this be more or less divided up by the size of the area that is supplied by that certain stream or lake, watershed, whatever you have, underground, subterranean water depending upon where they get it. The area that would be involved in supplying that one area. Wouldn't that be considered a suitable area?

WHITEFORD:

You see I think the key on this is water. Because even though you bury something for ten or fifteen or twenty years, who's to say whether that's the final resting spot for it and the key on this, as I say, becomes the water in that region and then the focus you see also brings us into contact with, perhaps, people next door, particularly in terms of Maine. So, you're dealing with the watershed basin which I think is the key kind of thing here. And how you feed into that depends on the people who are willing to participate. But the other key, as I see it, is the personal kind of approach and the local approach which is very critical.

LAPIERRE:

Thank you very much Professor Whiteford.

At this time I would like to read into the transcript of tonight's meeting a few letters which have been received and I don't think the people are here to present them. I have here a

letter from the New Brunswick Mining Association which was sent by a Mr. Street who is the President. In a short summary, I think, the first part of the letter endorses the program put forth by the Department of the Environment and in a second part he poses a question on liability, and he is concerned with who does liability rest in chemical spills or chemical pollution.

Another letter by the Association of Professional Engineers of New Brunswick and I don't know if there's anyone here. The letter was sent by Mr. Lee Fraser and without reading the contents, it simply supports the program put forth.

A letter from the Department of Transportation sent by D.L. Seheult, Deputy Minister stating that they would not be present at this meeting, the reason being that the person responsible who could most appropriately address the meeting was away in Quebec City on business.

A letter by Dr. David Walters, Director of Public Health Service who indicated he would not be present at the meeting but would be willing to discuss questions if we had any to address.

And a letter from Fredericton Recycling Inc. expressing their concerns on recycling.

Does anyone else have any comments, further comments to add to this evening meeting?

BURNS:

Mr. Chairman, I'm Carmen Burns with the Fredericton and District Labour Council. We have a little bit of a brief that we had prepared. Seeing the hour is late and a lot of the points have been covered, I think I'll just sort of verbalize. We were intimidated by the fact that 3/4 of New Brunswickers are depending on groundwater for their drinking supply, including the city of Fredericton.

We take note in the press that Fairvale has had contamination of their water supply. It's on ongoing thing we understand. Blame is being laid with somebody and they say we are actually following the guidelines of Environment Canada plus the local Department of Environment for the province of New Brunswick. The people still haven't, I guess, resolved their problem. It's ongoing. This thing is liable to continue until we get some, I think, more stringent controls in the legislation we have now.

I guess basically our position on the environmental issues is based on health, we are led to believe that even the scientific community can tell us that if we put chemical X into the water supply and so many parts per billion are there, it's going to do you no harm. But if we add chemical Y into the water supply and mix it with X, what's going to happen? The scientific community, I guess, over a protracted period of time has no real assurance, I don't think, to New Brunswickers, as a whole, on what the outcome health wise will be. We feel that basically we have to enact legislation, enact it quickly, probably in the next session of the Legislature, if at all possible, to protect our environment, protect a safe supply of drinking water.

I think a lot to do, personally, too, is going to be with education of the public as a whole. Education of employers, education of their employees of what they are using. I'm sure out there, there are employees working for employers and probably employers using chemicals, toxic wastes that are being dumped, they're not sure of what they're doing. They haven't been informed of how to dispose of them properly. That's all part of the game.

I think we could take, possibly, notation of, particularly in the air transportation industry, if you're running an airline, transporting goods from A to B your employees must know how to handle the goods. They must know the shipping requirement if in fact they can be shipped. If your employees are not trained properly the federal inspectors come in, they zip you for a $50,000 fine. I think, again, if we enact penalties into this legislation, it has to be sufficient to prevent abuse of the system. Not somebody that's going to dump a bunch of hazardous chemicals and be fined $50-$100. We think that there should be a comprehensive survey of contaminants in all the public drinking water supplies in the Province.

One thing we are asking that should be established is that each municipality has a hazardous and toxic waste committee to assist the elected officials of the municipality of the city, in particular, in dealing with these problems. I think it's just another resource that the city itself or the municipality would have itself. We feel that above all we have to have this particular group and a very active group in the municipality or watershed groups as we heard here a minute ago. The thing we are scared to death of is OK, we get the bite, the teeth into the legislation and we put it through the Legislature, then how do we enforce it?

For example, today there was a Health and Safety Committee meeting before federal inspectors of the Department of Labour. They have four inspectors to deal with 1,900 different locations and this again we feel unless we have the public input locally, that the Department of the Environment is probably going to end up with something similar to this for 1,900.

Thank you very much.

LAPIERRE:

Thank you.

Are there any other comments or questions? Mr. Henderson.

HENDERSON:

Just one brief comment Mr. Chairman. One of the things that's come through to me very strongly tonight is that the management of waste is a system. A lot of people have been talking about hazardous wastes as if they were a separate subject. There is no hard and fast line that can be drawn between ordinary waste like domestic garbage and hazardous wastes. We think we know the difference but we don't know where to draw the line.

So, I believe that the Council should recommend to the Minister that the Department pursue it's systems approach, if you want to call it that, to waste management.

Second point is linked to this. And that is that it was brought to my attention just very recently that the waste management councils or landfill councils, I'm not sure what they are called, that the Department is setting up, the Department has set up two or three, they don't necessarily see their terms of reference as going beyond simply managing the local landfill site.

In other words, they're not interested in recycling, they're not interested in separating hazardous from ordinary domestic waste and so forth. I think it's essential that their terms of reference make it clear that they are to be concerned with the whole system of waste management.

Thank you.

LAPIERRE:

Are there any other comments? If not, I take this opportunity to thank each and every one of you for your participation. As you know, following the meetings we will produce a report and your comments, we hope, will be faithfully brought forth in this report and as participants in the meeting, you will get a copy of the report.

I guess with this I say thank you and have a safe trip home.